



## 5 documents have cited:

**Salted Egg Cleaning and Grading System Using Machine Vision**  
**Bengua L.M.A., De Guzman V.J.D., Macunat D.M.S., Villaverde E.D., Mahusay A.T., Maaliw R.R., Lagman A.C., Alon A.S.**  
(2022) 2022 IEEE World AI IoT Congress, AlloT 2022, , pp. 489-493.

Search within results...

### Refine results

[Limit to](#) [Exclude](#)

#### Year

2022

(5) >

#### Author name

Evangelista, R.S.

(5) >

Susa, J.A.B.

(4) >

Doculan, J.A.D.

(3) >

Dellosa, R.M.

(2) >

Zarate, J.M.

(2) >

[View more](#)

#### Subject area

Computer Science

(5) >

Engineering

(5) >

Decision Sciences

(1) >

Mathematics

(1) >

Physics and Astronomy

(1) >

#### Document type

#### Publication stage

#### Source title

#### Keyword

#### Affiliation

#### Funding sponsor

#### Country/territory

#### Source type

#### Language

### Analyze search results

[Show all abstracts](#) [Sort on: Date \(newest\)](#)

	Document title	Authors	Year	Source	Cited by
<input type="checkbox"/> 1	A Machine Vision-Based Person Detection under Low-Illuminance Conditions Using High Dynamic Range Imagery for Visual Surveillance System	Susa, J.A.B., Militante, S.V., Acoba, A.G., (...), Lavina, C.G., Tanguilig, B.T.	2022	Proceedings of the 3rd International Conference on Smart Technologies in Computing, Electrical and Electronics, ICSTCEE 2022	0
	<a href="#">View abstract</a> <a href="#">View at Publisher</a> <a href="#">Related documents</a>				
<input type="checkbox"/> 2	Detecting Appropriate and Inappropriate COVID-19 Face Mask Wear in Controlled Environments Using Transfer Learning-Based Convolutional Neural Network	Dellosa, R.M., Malunao, D.C., Doculan, J.A.D., (...), Evangelista, R.S., Adefuin, M.C.G.	2022	ICETECC 2022 - International Conference on Emerging Technologies in Electronics, Computing and Communication	0
	<a href="#">View abstract</a> <a href="#">View at Publisher</a> <a href="#">Related documents</a>				
<input type="checkbox"/> 3	Identification of Philippine Therapeutic Leave using Deep Learning	Susa, J.A.B., Dellosa, R.M., Doculan, J.A.D., (...), Zapanta, G.S., Mindoro, J.N.	2022	ICETECC 2022 - International Conference on Emerging Technologies in Electronics, Computing and Communication	0
	<a href="#">View abstract</a> <a href="#">View at Publisher</a> <a href="#">Related documents</a>				
<input type="checkbox"/> 4	Implementation of Security Access Control using American Sign Language Recognition via Deep Learning Approach	Susa, J.A.B., MacAlisang, J.R., Sevilla, R.V., (...), Melegrito, M.P., Reyes, R.C.	2022	ICETECC 2022 - International Conference on Emerging Technologies in Electronics, Computing and Communication	0
	<a href="#">View abstract</a> <a href="#">View at Publisher</a> <a href="#">Related documents</a>				
<input type="checkbox"/> 5	Deep Neural Network-Based Gender Identification for Surveillance Restroom Restriction System	Susa, J.A.B., Doculan, J.A.D., Merin, J.V., (...), Evangelista, R.S., Reyes, M.C.	2022	ICETECC 2022 - International Conference on Emerging Technologies in Electronics, Computing and Communication	0
	<a href="#">View abstract</a> <a href="#">View at Publisher</a> <a href="#">Related documents</a>				

Display:  results per page

1

[^ Top of page](#)

[Limit to](#) [Exclude](#)

[Export ref](#)


[◀ Back to results](#) | 1 of 5 [Next >](#)
[Download](#) [Print](#) [Save to PDF](#) [Add to List](#) [Create bibliography](#)

**Proceedings of the 3rd International Conference on Smart Technologies in Computing, Electrical and Electronics, ICSTCEE 2022** • 2022 • 3rd International Conference on Smart Technologies in Computing, Electrical and Electronics, ICSTCEE 2022 • Bengaluru • 16 December 2022 through 17 December 2022 • Code 188067

Document type  
Conference Paper  
Source type  
Conference Proceedings  
ISBN  
978-166545664-7  
DOI  
10.1109/ICSTCEE56972.2022.I0099673  
[View more ▾](#)

# A Machine Vision-Based Person Detection under Low-Illuminance Conditions Using High Dynamic Range Imagery for Visual Surveillance System

Susa, Julie Ann B.<sup>a</sup> ; Militante, Sammy V.<sup>b</sup> ;  
 Acoba, Aimee G.<sup>c</sup> ; Evangelista, Ryan Soriente<sup>d</sup> ;  
 Lacatan, Luisito Lolong<sup>e</sup> ; Lavina, Charlemagne G.<sup>e</sup> ;  
 Tanguilig, Bartolome T.<sup>e</sup>   
[Save all to author list](#)

<sup>a</sup> Southern Luzon State University, Dept. of Computer Engineering, Quezon, Lucban, Philippines

<sup>b</sup> College of Engineering and Architecture, University of Antique, Antique, Philippines

<sup>c</sup> Technological University of the Philippines, Electronics Eng'g Technology Department, Manila, Philippines

<sup>d</sup> School of Graduate Studies, Sulu State College, Sulu, Philippines

[View additional affiliations ▾](#)

[Full text options ▾](#) [Export ▾](#)

## Abstract

## Abstract

The most difficult component of any computer vision application objects recognition and tracking. Video surveillance is a major study subject in computer vision in a dynamic environment, especially for security purposes. Video surveillance technology is critical in preventing crime, terrorism, and other threats. Several existing technologies can accurately monitor a person's mobility in interior environments. As well as regulated outdoor settings, object recognition and tracking at night, on the other hand, remain significant challenges for visual surveillance. The objects are usually farther away, inconspicuous, and have low brightness against the background. In this paper, detecting objects specifically people under low lighting conditions with the help of deep learning algorithms was used. For applications like in-car cameras and surveillance systems that operate in low light, these algorithms might improve picture identification performance. © 2022 IEEE.

## SciVal Topics

## Author keywords

## Metrics

Cited by 0 documents

Inform me when this document is cited in Scopus:

[Set citation alert ▶](#)

## Related documents

[Implementation of Security Access Control using American Sign Language Recognition via Deep Learning Approach](#)

Susa, J.A.B. , MacAlisang, J.R. , Sevilla, R.V. (2022) *ICETECC 2022 - International Conference on Emerging Technologies in Electronics, Computing and Communication*

[Deep Neural Network-Based Gender Identification for Surveillance Restroom Restriction System](#)

Susa, J.A.B. , Doculan, J.A.D. , Merin, J.V. (2022) *ICETECC 2022 - International Conference on Emerging Technologies in Electronics, Computing and Communication*

[Detecting Appropriate and Inappropriate COVID-19 Face Mask Wear in Controlled Environments Using Transfer Learning-Based Convolutional Neural Network](#)

Dellosa, R.M. , Malunao, D.C. , Doculan, J.A.D. (2022) *ICETECC 2022 - International Conference on Emerging Technologies in Electronics, Computing and Communication*

[View all related documents based on references](#)

Find more related documents in Scopus based on:

[Authors ▶](#) [Keywords ▶](#)

computer vision; deep learning algorithms; low lighting conditions; object recognition and tracking

#### Indexed keywords

#### SciVal Topics

#### Metrics

### References (20)

[View in search results format >](#)

SciVal topics

Metrics

 All[Export](#)[Print](#)[E-mail](#)[Save to PDF](#)[Create bibliography](#)

- 1 Chen, W., Shah, T.  
 (2021) *Exploring Low-light Object Detection Techniques*. Cited 6 times.  
 arXiv [cs.CV]. Opgehaal van  
<http://arxiv.org/abs/2107.14382>

- 2 Huang, K., Wang, L., Tan, T., Maybank, S.  
**A real-time object detecting and tracking system for outdoor night surveillance**

(2008) *Pattern Recognition*, 41 (1), pp. 432-444. Cited 116 times.  
 doi: 10.1016/j.patcog.2007.05.017

[View at Publisher](#)

- 3 Narasimhan, S.G., Nayar, S.K.  
**Contrast restoration of weather degraded images**

(2003) *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 25 (6), pp. 713-724. Cited 1380 times.  
 doi: 10.1109/TPAMI.2003.1201821

[View at Publisher](#)

- 4 Garg, K., Nayar, S.K.  
**Detection and removal of rain from videos**

(2004) *Proceedings of the IEEE Computer Society Conference on Computer Vision and Pattern Recognition*, 1, pp. 1528-1535. Cited 448 times.

- 5 Tang, J., Kim, J., Peli, E.  
**Image enhancement in the JPEG domain for people with vision impairment**

(2004) *IEEE Transactions on Biomedical Engineering*, 51 (11), pp. 2013-2023. Cited 83 times.  
 doi: 10.1109/TBME.2004.834264

[View at Publisher](#)

- 6 Bennett, E.P., McMillan, L.  
**Video enhancement using per-pixel virtual exposures**

(2005) *ACM Transactions on Graphics*, 24 (3), pp. 845-852. Cited 194 times.  
 doi: 10.1145/1073204.1073272

[View at Publisher](#)

- 7 Davies, D., Palmer, P.L., Mirmehdi, M.  
 Detection and tracking of very small low contrast objects  
 (1998) *BMVC*, pp. 599-608. Cited 89 times.

Scival topics

Metrics

- 8 Second Joint IEEE International Workshop on Object Tracking and Classification in and beyond the Visible Spectrum (OTCBVS?05)  
<http://www.cse.ohio-state.edu/otcbvs/>

Scival topics

Metrics

- 9 Uri, A.  
(2020) YOLOv3 Explained  
Retrieved from  
<https://towardsdatascience.com/yolo-v3-explained-f5b850390f>

Scival topics

Metrics

- 10 Karljin, A.  
(2020) YOLOv3-Real-Time Object Detection  
Retrieved from  
<https://medium.com/analytics-vidhya/yolov3-realtime-object-detection-54e69037b6dhttps://medium.com/analyticsvidhya/yolov3-realTime-object-detection-54e69037b6d0>

Scival topics

Metrics

- 11 Jonathan, H.  
(2018) MAP (Mean Average Precision) for Object Detection. Cited 29 times.  
Retrieved from  
<https://jonathan-hui.medium.com/mapmean-Average-precision-for-object-detection-45c121a31173>

Scival topics

Metrics

- 12 Jatin, P.  
(2021) Non Maximum Suppression: Theory and Implementation in PyTorch  
Retrieved from  
<https://learnopencv.com/non-maximum-suppression-Theory-Andimplementation-in-pytorch/>

- 13 Loh, Y.P., Chan, C.S.  
**Getting to know low-light images with the Exclusively Dark dataset**

(2019) Computer Vision and Image Understanding, 178, pp. 30-42. Cited 220 times.  
<http://www.elsevier.com.mapua.idm.oclc.org/inca/publications/store/6/2/8/0/9/index.htm>  
doi: 10.1016/j.cviu.2018.10.010

[View at Publisher](#)

Scival topics

Metrics

- 14 Wang, W., Wei, C., Yang, W., Liu, J.  
**GLADNet: Low-light enhancement network with global awareness**
- (2018) Proceedings - 13th IEEE International Conference on Automatic Face and Gesture Recognition, FG 2018, pp. 751-755. Cited 188 times.  
<http://ieeexplore.ieee.org.mapua.idm.oclc.org/xpl/mostRecentIssue.jsp?punumber=8372403>  
ISBN: 978-153862335-0  
doi: 10.1109/FG.2018.00118

[View at Publisher](#)

Scival topics

Metrics

- 15 Loh, Y.P., Liang, X., Chan, C.S.  
**Low-light image enhancement using Gaussian Process for features retrieval**

(2019) Signal Processing: Image Communication, 74, pp. 175-190. Cited 35 times.  
doi: 10.1016/j.image.2019.02.001

[View at Publisher](#)

Scival topics

Metrics

- 16 Maaliw, R.R., Susa, J.A.B., Alon, A.S., Lagman, A.C., Ambat, S.C., Garcia, M.B., Piad, K.C., (...), Fernando - Raguro, M.C.  
**A Deep Learning Approach for Automatic Scoliosis Cobb Angle Identification**

[View at Publisher](#)

SciVal topics  
Metrics

- 17 Maaliw, R.R., Quing, K.A.C., Susa, J.A.B., Marqueses, J.F.S., Lagman, A.C., Adao, R.T., Fernando-Raguro, M.C., (...), Canlas, R.B.

**Clustering and Classification Models for Student's Grit Detection in E-Learning**

(2022) 2022 IEEE World AI IoT Congress, AlloT 2022, pp. 39-45. Cited 7 times.  
<http://ieeexplore.ieee.org.mapua.idm.oclc.org/xpl/mostRecentIssue.jsp?punumber=9817098>  
ISBN: 978-166548453-4  
doi: 10.1109/AlloT54504.2022.9817177

[View at Publisher](#)

SciVal topics  
Metrics

- 18 Marasigan, R.I., Alon, A.S., Malbog, M.A.F., Mindoro, J.N., Velasquez, S.G.

**Canarium Ovatum Recognition utilizing Mask R-CNN and Lightweight Unmanned Aerial Vehicle** ([Open Access](#))

(2022) 2022 IEEE 13th Control and System Graduate Research Colloquium, ICSGRC 2022 - Conference Proceedings, pp. 31-35. Cited 5 times.  
<http://ieeexplore.ieee.org.mapua.idm.oclc.org/xpl/mostRecentIssue.jsp?punumber=9844829>  
ISBN: 978-166546806-0  
doi: 10.1109/ICSGRC55096.2022.9845172

[View at Publisher](#)

SciVal topics  
Metrics

- 19 Bengua, L.M.A., De Guzman, V.J.D., Macunat, D.M.S., Villaverde, E.D., Mahusay, A.T., Maaliw, R.R., Lagman, A.C., (...), Alon, A.S.

**Salted Egg Cleaning and Grading System Using Machine Vision**

(2022) 2022 IEEE World AI IoT Congress, AlloT 2022, pp. 489-493. Cited 5 times.  
<http://ieeexplore.ieee.org.mapua.idm.oclc.org/xpl/mostRecentIssue.jsp?punumber=9817098>  
ISBN: 978-166548453-4  
doi: 10.1109/AlloT54504.2022.9817366

[View at Publisher](#)

- 20 Maaliw, R.R., Susa, J.A.B., Alon, A.S., Lagman, A.C., Ambat, S.C., Garcia, M.B., Piad, K.C., (...), Fernando - Raguro, M.C.

**A Deep Learning Approach for Automatic Scoliosis Cobb Angle Identification**

(2022) 2022 IEEE World AI IoT Congress, AlloT 2022, pp. 111-117. Cited 14 times.  
<http://ieeexplore.ieee.org.mapua.idm.oclc.org/xpl/mostRecentIssue.jsp?punumber=9817098>  
ISBN: 978-166548453-4  
doi: 10.1109/AlloT54504.2022.9817290

[View at Publisher](#)

SciVal topics  
Metrics

© Copyright 2023 Elsevier B.V., All rights reserved.