IEEE.org   IEEE *Xplore*   IEEE SA   IEEE Spectrum   More Sites

Donate   Cart

Create Account   Personal Sign In

Browse ⌄   My Settings ⌄   Help ⌄

Access provided by:
Vels Institute of Science Technology & Advanced Studies (VISTAS)

Sign Out

All ⌄

🔍

ADVANCED SEARCH

Conferences > 2023 Third International Conf... ❓

Vehicle Detection and Classification based on C-DSO Dataset using YOLO v3 with SRBD Method for Intelligent Transportation Applications

Publisher: IEEE | Cite This | 📄 PDF

R. Anitha ; P. Prabakaran   **All Authors** •••

169
Full
Text Views

Ⓡ 🔗 © 📁 🔔

Alerts

Manage Content Alerts

Add to Citation Alerts

Abstract

Document Sections

I. Introduction

II. Related Work

III. Yolo-v3 Vehicle Detection Stages

IV. Methodology

V. Dataset Setup

Show Full Outline ⌄

Authors

Figures

References

Keywords

Metrics

📄
Downl
PDF

Abstract:
The tremendous evolution of Computer vision and technology, the most challenging application of vehicle category detection is an important role in our Indian Traffic syst... **View more**

⌄ **Metadata**

Abstract:
The tremendous evolution of Computer vision and technology, the most challenging application of vehicle category detection is an important role in our Indian Traffic system. The most of the vehicle detection algorithms facing some struggles with vehicle object detection and recognition rate. Using Deep Learning with Conventional Neural networks to undercover the problem of vehicle detection and to understand the right way of vehicle classification, detection, and vehicle recognition. This paper proposes our model of designing a dataset (C-DSO) and combines the method YOLO(You Only Look Once) V3 algorithm with SRBD to introduce the SRBD-C-DSO algorithm, it detects the smart way of integrating the pre-training of the image, labeling of vehicle image, image smoothing, and Annotation. Furthermore, renovating the dataset, adding the various categories of vehicle images, and the experimental results show a better detection rate and reduction of loss of validation in the dataset.

Published in: 2023 Third International Conference on Advances in Electrical, Computing, Communication and Sustainable Technologies (ICAECT)

☰ Contents

I. Introduction

Obj ect detection has many applications in various areas, including surveillance, automatic emergency braking systems, and other applications. In modern computer vision, the research area has to plays a vital role in Vehicle detection of Intelligent Traffic surveillance systems. Despite the popularity and significance of object detection research, it is also one of the most difficult tasks in computer vision. There is a growing demand for not just detecting things that differ significantly from one another, but also identifying the type of comparable obj ects. ID recognition, facial recognition, warehouse categorization, and other applications are trying to achieve the detection target. Deep learning technology outperforms all other machine learning techniques in sectors linked to computer vision. An automatic feature extraction is a powerful tool that deep learning technology can use to improve performance [1].

Sign in to Continue Reading

| Authors	⌄
Figures	⌄
References	⌄
Keywords	⌄
Metrics	⌄

More Like This

Clipping-based Neural Network Post Training Quantization for Object Detection
2023 IEEE International Conference on Control, Electronics and Computer Technology (ICCECT)
Published: 2023

Fast Deep Neural Networks With Knowledge Guided Training and Predicted Regions of Interests for Real-Time Video Object Detection
IEEE Access
Published: 2018

Show More
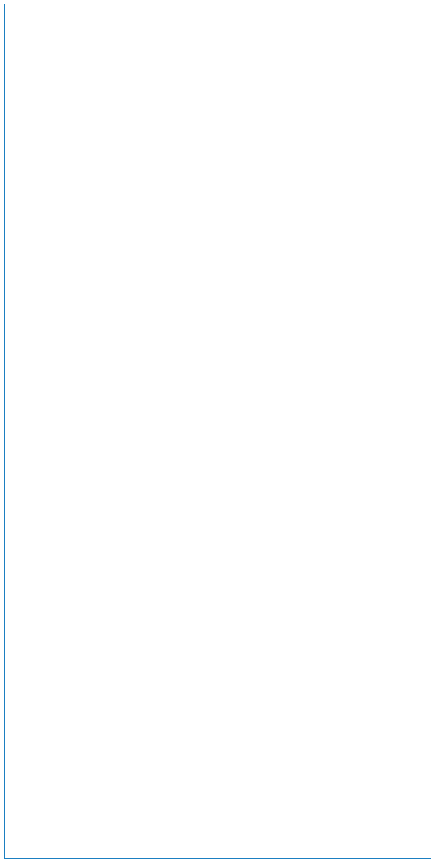
IEEE Personal Account

CHANGE
USERNAME/PASSWORD

Purchase Details

PAYMENT OPTIONS

VIEW PURCHASED
DOCUMENTS

Profile Information

COMMUNICATIONS
PREFERENCES

PROFESSION AND
EDUCATION

TECHNICAL INTERESTS

Need Help?

US & CANADA: +1 800
678 4333

WORLDWIDE: +1 732
981 0060

CONTACT & SUPPORT

Follow

About IEEE *Xplore* | Contact Us | Help | Accessibility | Terms of Use | Nondiscrimination Policy | IEEE Ethics Reporting ↗ | Sitemap |
IEEE Privacy Policy

IEEE Account

» Change Username/Password

» Update Address

Purchase Details

» Payment Options

» Order History

» View Purchased Documents

Profile Information

» Communications Preferences

» Profession and Education

» Technical Interests

Need Help?

» **US & Canada:** +1 800 678 4333

» **Worldwide:** +1 732 981 0060

» Contact & Support

About IEEE *Xplore* | Contact Us | Help | Accessibility | Terms of Use | Nondiscrimination Policy | Sitemap | Privacy & Opting Out of Cookies