

# GTU - Project Monitoring and Mentoring System



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## **PSAR Details**

**PSAR No.** : 20BE7\_170130107057\_1

## -Part - I : PATENT SEARCH TECHNIQUE USED

1. Patent Search Database Used : Google Patents

Web link of the Database : https://patents.google.com/

2. Keywords Used for Search : vehical detection, machine learning, deep learning , object detection

3. Search String Used : vehicle detection machine learning

4. Number of Results/Hits getting : 50

## -Part - II: BASIC DATA OF PATENTED INVENTION/BIBLIOGRAPHIC DATA-

5. Category/Field of Invention

6. Invention is Related to/Class of Invention : U.S Application data

**6a. IPC class of the studied patent** : GO6K 9/00 , G06K 9/34, G06K 9/46, G06K 9/62

7. Title of Invention MOVING VEHICLE DETECTION AND ANALYSIS USING LOW RESOLUTION REMOTE SENSING

IMAGERY

8. Patent No. : US 10, 255, 523 B2

**9. Application No.** : 15 / 351 , 373

**9a. Web link of the studied patent**: https://patents.google.com/patent/US10255523B2/en?

**10. Date of Filing/Application** : Nov . 14 , 2016

11. Priority Date

12. Publication/Journal Number - (Issue No. of Journal in

: US 2017 / 0140245 A1 which Patent is published)

**13. Publication Date** : May 18, 2017

14. First Filled Country : 284

## 15. Also Published as

Country	Patent No
United States	US 10

Name of Inventor	Address/City/Country of Inventor
Adam Wiggen Kraft	Mountain View
Boris Aleksandrovich Babenko	CA(US)
Michael Alan Baxter	Mountain View
Steven Jeffrey Bickerton	CA(US)

## 17. Applicant

Name of Applicant/Assignee	Address/City/Country of Applicant
Orbital Insight Inc	Palo Alto

#### 18. Applicant for Patent is : Company

## -Part - III: TECHNICAL PART OF PATENTED INVENTION-

## 19. Limitation of Prior Technology/Art :

a non -transitory computer-readable storage medium comprising computer-readable instructions,

that when executed by the processor, cause the processor to:

plurality of images, each moving vehicle associated receive a plurality of images of a geographical area,

each image of the plurality of images captured at a distinct time;

### 20. Specific Problem Solved/Objective of Invention:

Moving vehicle detection.

### 21. Brief about Invention:

The Figures (FIGS.) and the following description relate to preferred embodiments by way of illustration only. It should be noted that from the following discussion, alternative embodiments of the structures and methods disclosed herein will be readily recognized as viable alternatives that may be employed without departing from the principles of what is claimed.

#### 22. Key Learning Points:

Object detection, processing images from arial imaging device, edge analysis

#### 23. Summary of Invention:

Disclosed is a method and system for processing images from an aerial imaging device. A moving vehicle analysis system receives images from an aerial imaging device. The system may perform edge analysis in the images to identify a pairs of edges corresponding to a road. The system may identify pixel blobs in the images including adjacent pixels matching each other based on a pixel attribute. The system uses a machine learning model for generating an output identifying moving vehicles in the images. The system determines a count of the moving vehicles captured by the images, where each moving vehicle is associated with corresponding pixel blobs.

26. How much this invention is related with your IDP/UDP? : < 70 %	
27. Do you have any idea to do anything around the said invention to improve it?:  We can improve the accuracy of our machine learning. We can also add number plate detection and recognition which can be used in many other fields.	
we can improve the accuracy of our machine learning, we can also add number plate detection and recognition which can be used in many other needs.	
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: Published Application

25. Patent Status