



**GUJARAT TECHNOLOGICAL UNIVERSITY  
(GTU)  
INNOVATION COUNCIL (GIC)  
Patent Search & Analysis Report  
(PSAR)**



**Date of Submission :**

Dear **DAVE SANKET GOPALBHAI,**

**Studied Patent Number for generation of PSAR :**

**PART 1: PATENT SEARCH DATABASE USED**

- |  |   |   |
|--|---|---|
| <b>1. Patent Search Database used</b>    | : | Google Patents  |
| <b>Web link of database</b>              | : | <a href="https://patents.google.com/">https://patents.google.com/</a> |
| <b>2. Keywords Used for Search</b>       | : | Human, activity, recognition  |
| <b>3. Search String Used</b>             | : |   |
| <b>4. Number of Results/Hits getting</b> | : | 9999  |

**PART 2: BASIC DATA OF PATENTED INVENTION /BIBLIOGRAPHIC DATA**

- |  |   |   |
|--|---|---|
| <b>5. Category/ Field of Invention</b>               | : |   |
| <b>6. Invention is Related to/Class of Invention</b> | : | Methods or arrangements for reading or recognising printed or written characters or for recognising   |
| <b>6 (a) : IPC class of the studied patent</b>       | : | G06K 9/00369  |
| <b>7. Title of Invention</b>                         | : | Video Monitoring System   |
| <b>8. Patent No.</b>                                 | : |   |
| <b>9. Application Number</b>                         | : | 14 / 578 , 630  |
| <b>9 (a) : Web link of the studied patent</b>        | : | <a href="https://patentimages.storage.googleapis.com/4d/11/bd/bb1b4abd0a9d80/US9934427.pdf">https://patentimages.storage.googleapis.com/4d/11/bd/bb1b4abd0a9d80/US9934427.pdf</a> |
| <b>10. Date of Filing/Application (DD/MM/YYYY)</b>   | : | 10/21/ 2009   |
| <b>11. Priority Date (DD/MM/YYYY)</b>                | : |   |
| <b>12. Publication/Journal Number</b>                | : |   |
| <b>13. Publication Date (DD/MM/YYYY)</b>             | : |   |
| <b>14. First Filled Country : Albania</b>            | : | 284   |

**15. Also Published as**

Sr.No	Country Where Filled	Application No./Patent No.
1		

**16. Inventor/s Details.**

Sr.No	Name of Inventor	Address/City/Country of Inventor
1	Robinson Piramuthu	Oakland
2	Daniel Prochazka	CA (US);

**17. Applicant/Assignee Details.**

Sr.No	Name of Applicant/Assignee	Address/City/Country of Applicant
1	FlashFoto Inc	Los Gatos

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

**PART 3: TECHNICAL PART OF PATENTED INVENTION****19. Limitation of Prior Technology / Art**

Poor image quality limits image segmentation's effectiveness.

**20. Specific Problem Solved / Objective of Invention**

To determine human activity using digital color image.

**21. Brief about Invention**

A monitoring system includes cameras adapted to capture images and depth data of the images . A computer device processes the image signals and depth data from the cameras according to various software modules that monitor one or more of the following : ( a ) compliance with patient care protocols ; ( b ) patient activity ; ( c ) equipment usage ; ( d ) the location and / or usage of assets ; ( e ) patient visitation metrics ; ( f ) data from other sensors that is integrated with the image and depth data ; ( g ) gestures by the patient or caregivers that are used as signals or for controls of equipment , and other items . Alerts may be issued if any conditions of importance are detected.

**22. Key learning Points**

Rule-based segmentation, illustration, image processing.

**23. Summary of Invention**

One method for having a computer represent its results for determining the foreground of an image is to direct the computer to segment out the foreground from an image. With the advancement and cost effectiveness of digital photography, many more digital images are being created than ever before. Many of these newly created digital images are taken of a person or people, whereby the person or people are arguably in the foreground of the image. Person or people segmentation from an entire image is currently a popular research topic in the field of computer vision. Most of the segmentation approaches rely heavily on training sets and accuracy of probabilistic models. Such approaches have the drawback of being computational and memory intensive. They are also sensitive to model mismatch since they are based on heavy assumptions.

**24. Number of Claims** : 20

**25. Patent Status** : Expired Patent

**26. How much this invention is related with your IDP/UDP?**

71 to 90%

**27. Do you have any idea to do anything around the said invention to improve it? (Give short note in not more than 500 words)**

The light that is focused on the image can be improved so that we can get the accurate result of the image.