JETIR.ORG ISSN: 2349-5162 | ESTD Year : 2014 | Monthly Issue

JOURNAL OF EMERGING TECHNOLOGIES AND INNOVATIVE RESEARCH (JETIR)

An International Scholarly Open Access, Peer-reviewed, Refereed Journal

REPPERTUM OF LISENCE PLATE WITH IOT

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***ABSTRACT*:** This work addresses the problem of vehicle identification through non-overlapping cameras. As our main contribution, we introduce a novel dataset for vehicle identification, called Vehicle-Rear, that contains more than three hours of high-resolution videos, with accurate information about the make, model, color and year of nearly 3,000 vehicles, in addition to the position and identification of their license plates

***INDEX TERMS*: Vehicle identification, vehicle matching, multi-stream neural networks, feature fusion.**

I. INTRODUCTION

The term digital image refers to processing of a two dimensional picture by a digital computer. A digital image is an array of real or complex numbers represented by a finite number of bits. This digitized image can then be processed and/or displayed on a high-resolution television monitor. For display, the image is stored in a rapid-access buffer memory, which refreshes the monitor at a rate of 25 frames per second to produce a visually continuous display.

II. ABOUT THE PROJECT

With the ease and the advancement of communication nowadays, anyone can be a creator. In today's digital ecosystem, any digital content can be copied and distributed without loss of quality. The existing digital rights management system has not substantially reduced copyright infringements.

To track the content uniqueness and ownership we implementing a new decentralized system for registration, licensing and distribution of digital content using a blockchain solution. The execution of the system is taking place without the involvement of intermediaries. The solution utilizes the key features of the blockchain technology, Ethereum smart contracts, as well as the distributed ledger to achieve a decentralized, trusted, traceable, secure delivery of the digital content, with automatic payment and

Literature Survey

This paper deals with the recognition of Indian car license plate recognition. The LPR system consists of four steps Plate Localization, Preprocessing, Segmentation and Normalization and Optical Character Recognition (OCR). Morphological operator is applied to the image to identify the plate location. Then the plate region is then preprocessed by applying the histogram equalization technique. The smearing and morphological algorithms are used to segment the characters and the segmented result is normalized and fed to the OCR part. The characters are then recognized using the template matching algorithm

III. PROPOSED SYSTEM

This project platform allows the user (content creator) to add the content which in turn verifies the ownership of the content and adds it to the blockchain. The content ownership verification is automatically takes place whenever the user adds the content ledger using Smart Contract. The project uses the benefit of blockchain to allow any registered user can cjeck tbhe details of content such as owner, data creator, trails etc. When the user requests access to the content by paying the required amount, the smart contract fetches the data from the blockchain and is shared with the user. The owner gets paid for every download of its content.

3.1 Image Enchancement

Image enhancement operations improve the qualities of an image like improving the image's contrast and brightness characteristics, reducing its noise content, or sharpen the details. This just enhances the image and reveals the same information in more understandable image. It does not add any information to it.

3.2 Image Restoration

Image restoration like enhancement improves the qualities of image but all the operations are mainly based on known, measured, or degradations of the original image. Image restorations are used to restore images with problems such as geometric distortion, improper focus, repetitive noise, and camera motion. It is used to correct images for known degradations.

3.3 Image Compression

Image compression and decompression reduce the data content necessary to describe the image. Most of the images contain lot of redundant information, compression removes all the redundancies. Because of the compression the size is reduced, so efficiently stored or transported. The compressed image is decompressed when displayed. Lossless compression preserves the exact data in the original image, but Lossy compression does not represent the original image but provide excellent compression.

3.4 Applications of Digital Image Processing

Digital image processing has a broad spectrum of applications, such as remote sensing via satellites and other spacecraft's, image transmission and storage for business applications, medical processing, radar, sonar and acoustic image processing, robotics and automated inspection of industrial parts.

3.5 Document Processing and Defence Intelligence

It is used in scanning, and transmission for converting paper documents to a digital image form, compressing the image, and storing it on magnetic tape. It is also used in document reading for automatically detecting and recognizing printed characteristics.

It is used in reconnaissance photo-interpretation for automatic interpretation of earth satellite imagery to look for sensitive targets or military threats and target acquisition and guidance for recognizing and tracking targets in real-time smart-bomb and missile-guidance systems.

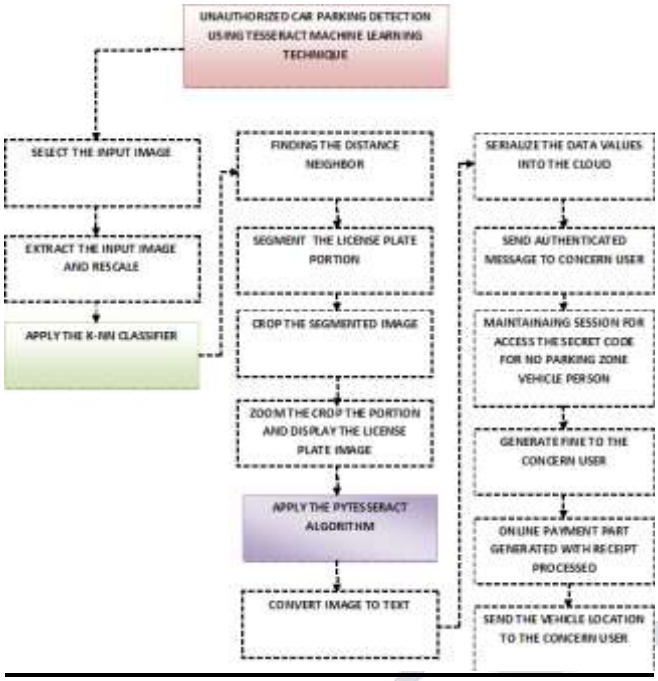
IV MODULES

- License Plate Detection
- Image Enchancement
- Image Segmentation
- Detection of Owner

V SYSTEM REQUIREMENTS

HARDWARE REQUIREMENT	SOFTWARE REQUIREMENTS
PROCESSOR TYPE : PENTIUM IV **Speed** : 2.4 GHZ **RAM** : 256 MB HARD DISK : 20 GB **Keyboard** : 101/102 Standard Keys **Mouse** : Scroll Mouse	• Blockchain – Ethereum • Language- Solidity • Frontend-Bootstrap • Backend-Java

VI SYSTEM ARCHITECTURE



The flow diagram represents the process of detection of input image, applying Machine Learning, segmentation, applying the Deep Learning, conversion and identifying owner

VII. RESULTS AND DISCUSSION

Results

Smart parking systems typically get information only regarding accessible parking areas. All smart cities commonly face a key problem related to parking facilities and traffic management systems. Due to vehicles in a no-parking zone, several folks ought to face traffic problems. Therefore, to reduce this, projected work combines IoT and cloud. The target of the projected work is to create a model, "Detection and Identification of Vehicle's No-Parking area using IoT and cloud", that helps the drivers to acknowledge the present parked space. No parking area is detected by making use of geolocation of vehicles with the assistance of a real-time cloud server.

ACKNOWLEDGMENT

We would also like to extend our sincere gratitude and grateful thanks to our principal **Dr. E R VIJAYA KRISHNA** for having extended the research and development facilities of the department.

We are grateful to our chairman **Shri. M K RAJAGOPALAN**. He has been a constant source of inspiration right from the beginning.

We would like to express our faithful and grateful thanks to our administrator officer, **Shri. V BHASKARAN** for his support

We also sincerely thank our head of the department, **Mr. R VINOTH KUMAR** whose continuous encouragement and sufficient comments enabled us to complete our project report.

We thank our project coordinator, **Mr R VINOTH KUMAR** and **all our staff members** who have been by our side always and helped us with our project. We also sincerely thank **all the lab technicians** for their help as in the course of our project development.

We are very thankful and grateful to our beloved guide, **Mr. R Bhuvaneswari , MRS. M INDHUMATHY** whose great support in valuable advices, suggestions and tremendous help enabled us in completing our project. they has been a great source of inspiration to us.

We wish to thank our **family members and friends** for their constant encouragement, constructive criticisms and suggestion that has helped us in timely completion of this project.

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