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## **Research Paper on Vehicle Number Plate Identification Web Application.**

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Abstract: Number plate recognition is an advanced image processing technology that utilizes the number plates of vehicles to identify and distinguish them. Its primary aim is to create an efficient and automated system for authorized vehicle identification by analyzing the vehicle's number plate. This system can be effectively employed at secure entry points, such as military zones or high-level government facilities like the Parliament or Supreme Court, to enhance security control measures. The developed system operates in several steps. Firstly, it detects the presence of a vehicle and captures its image. Then, it isolates the region containing the number plate and converts it into grayscale for further processing. Subsequently, the system extracts the number plate from the image, excluding any unnecessary information. Finally, an algorithm is utilized to accurately recognize and interpret the alphanumeric characters present on the number plate, including both digits and letters.

Keywords: Optical character recognition, Detection, identification monitoring, OPEN CV

## REFERENCES

[1]Xiaojun Zhai, Faycal Bensaali, "Standard Definition ANPR System on FPGA and an Approach to Extend it to HD" in 2013 IEEE GCC Conference and exhibition, November 17-20, Doha, Qatar. pp.214

[2]H. Erdinc Kocer and K. Kursat Cevik, "Artificial neural networks based vehicle license plate recognition," Procedia Computer Science, vol. 3, pp. 1033-1037, 2011

[3]A Roy and D.P Ghoshal, "Number Plate Recognition for use in different countries using an improved segmentation," in 2nd National Conference on Emerging Trends and Applications in Computer Science(NCETACS), 2011, pp. 1-5

[4]Fikriye Öztürk and Figens Özen, "A New License Plate Recognition System Based on Probabilistic

NeuralNetworks," Procedia Technology, vol. 1, pp. 124-

128,2012

[5]Anton Satria Prabuwono and Ariff Idris, "A Study of Car Park Control System Using Optical Character Recognition," in International Conference on Computer and Electrical Engineering, 2008, pp. 866-870

[6]Ch. Jaya Lakshmi, Dr. A. Jhansi Rani, Dr. K. Sri Ramakrishna, and M. Kanti Kiran, "A Novel Approach for Indian License Recognition System," International Journal of Advanced Engineering Sciences and

Technologies, vol. 6, no. 1, pp. 10-14, 2011

[7]Jianbin Jiao, Qixiang Ye, and Qingming Huang, "A configurable method for multi-style license platerecognition," Pattern Recognition, vol. 42, no. 3, pp. 358-369, 2009

[8]Zhigang Zhang and Cong Wang, "The Research of Vehicle Plate Recognition Technical Based on BP Neural Network," AASRI Procedia, vol. 1, pp. 74-81, 2012

[9]Ying Wen, "An Algorithm for License Plate recognition Applied to Intelligent Transportation System", IEEE Transactions of Intelligent Transportation Systems. pp. 1-16, 2011

[10]Chirag Patel, Dipti Shah, Atul Patel," Automatic Number Plate Recognition System (ANPR): A Survey", International Journal of Computer Applications, 2013

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