

Literature Survey

S.NO	Authors	Topic	Year	Model	Advantages	Disadvantages
1.	Xianglei Zhu et.al,	A Unified Framework of Intelligent Vehicle Damage Assessment based on Computer Vision Technology	2019	A framework of intelligent vehicle damage assessment algorithm based on object detection technology and image classification technology is proposed. Mask R-CNN algorithm can automatically identify the damage position, type and degree according to photos provided by users.	Offer appropriate maintenance price and reach the accuracy that can meet actual application requirements.	Higher accuracy was not achieved because the characteristics of vehicle damage images was not used.
2.	Burak Balci et.al,	Frontal Vehicle Body Damage Assessment in Surveillance Camera Images Using Deep Learning Techniques	2021	Vehicle frontal region symmetry property and deep feature representations are utilized in the decision making stage. Experimental results show that proposed method achieves 91% accuracy on a test dataset that includes a broad variety of damage types.	Use images taken from a short proximity (<3 m) to the vehicle or to the damaged region of vehicle in their decision making process.	This paper did not focus on the cost estimation scheme based on the impact assessment.

3.	Ranjodh Singh et,al,	Automating Car Insurance Claims Using Deep Learning Techniques	2019	Mask R-CNN, PANet and an ensemble of these two along with a transfer learning based VGG16 network to perform different tasks of localizing and detecting various classes of parts and damages found in the car were performed.	The proposed system achieves good mAP scores for parts localization and damage localization (0.38 and 0.40 respectively).	The proposed model did not meet to the existing real time need. The usage of this model was very limited. This did not include different kind of vehicles.
4.	Jihad Qaddour et.al,	Automatic Detection and Classification for Damaged Vehicle Using Enhanced Deep Learning Algorithm	2022	Well-organized deep knowledge-based constructions for detecting, localizing, and classification vehicle damage using enhanced Mask R-CNN method which integrates deep learning, instance segmentation, and convey determining methods for attribute withdrawal, damage recognition, location, classification, and visualization car's defects using car damaged images.	Inception-ResNetV2 stands out to perform the best. The empirical results reveal that the proposed method not only recognizes damaged automobiles, but also locates them and determines their severity level and fulfills our goal to determine vehicle damage immediately, find it, analyze its extremity levels, and portray it by outlining its accurate site and severity levels.	Didn't deal with finding the cost with the trained model.