Project Design Phase - I

Proposed Solution

Date	29 September 2022
Team ID	PNT2022TMID01018
Project Name	Intelligent Vehicle Damage Assessment and Cost Estimator for Insurance Companies
Maximum Marks	2 Marks

S. No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	The major issues of insurance companies are the rise of fraudulent claims in the insurance sector. The major issues of customers are the raise of claim leakage (the difference between the final settled amount paid out by an insurer, and the amount that they could've paid had the claims process been more efficient).
2.	Idea / Solution description	"Intelligent Vehicle Damage Assessment and Cost Estimator for Insurance Companies" is a system which is necessary to stop the fraudulent claims and claim leakage. Car insurers can review client claims using this system more quickly and accurately than with other conventional, labour-intensive approaches.

3.	Novelty / Uniqueness	A collection of ML algorithms with an API that makes use of computer vision make up the “Intelligent Vehicle Damage Assessment and Cost Estimator for Insurance Companies” system. The algorithms, which are based on deep learning, automatically identify the body of a car and assess the severity of the damage. Machine learning makes it possible to identify damaged parts, anticipate the type of repair that will be required, and calculate the potential cost of the repair.
4.	Social Impact / Customer Satisfaction	“Intelligent Vehicle Damage Assessment and Cost Estimator for Insurance Companies” has its advantages as it enables quick damage assessments and repair cost estimates without the need to wait for an inspector. The following steps are necessary for each insurance claim to be processed: • Analyze the user-submitted image of the damaged car. • Examine a vehicle model. • Find faulty auto parts. • Evaluate the extent of component damage. • Produce a report.

5.	Business Model (Revenue Model)	The approach reduces the amount of time it takes to process data, protects from fraud claims (by 90% or more), and lowers the cost of hiring new employees. Businesses that use Car Damage Recognition replace the time-consuming human-operated claims processes. <u>Traditional Method:</u> The claim is submitted by the customer to the insurance company via application forms. Documents are processed manually by the insurers. Third party evaluates the damage on the car. Insurance claim is approved for the customer. <u>Modern Method:</u> The self service claim is raised by the customer by uploading the picture of damaged car. Computer vision evaluates the damage and in fraction of seconds the amount to be issued is known.
6.	Scalability of the Solution	The client relationships and the reputation of the business will suffer from inaccurate and delayed estimations. There are number of strategies that have better results than the traditional ones to increase accuracy and speed up the process. They must have the ability to quickly evaluate and analyze the data from multiple sources and offer precise estimates.