Project Design Phase-I
Proposed Solution Template

Date	03 November 2022
Team ID	PNT2022TMID22103
Project Name	**Project -**Intelligent Vehicle Damage Assessment & Cost Estimator for Insurance Companies
Maximum Marks	2 Marks

Proposed Solution Template:

Project team shall fill the following information in proposed solution template.

S. No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	❖ Insurance companies, 72.22% of small cases require the presence of damage fixers, which leads to high cost of risk investigation, and the leakage problem in the process of damage fixing is difficult to control. ❖ The accident party, the long waiting time at the accident site, the slow payment process, the unreasonable fixed price and other issues, to a certain extent, reduce customer satisfaction with the insurance company
2.	Idea / Solution description	❖ Deep neural networks have led to a series of breakthroughs for image classification With the development of deep learning the process of computer vision has been greatly accelerated. Research on visual recognition is undergoing a transition from feature engineering to network engineering ❖ At the same time, the massive data of the automobile insurance industry provides abundant raw materials for network model training.
3.	Novelty / Uniqueness	❖ The dataset used consists of more set images of damaged vehicles with a single class named scratch. ❖ The images are precisely annotated with the area of damage where in the area of damage is highlighted
4.	Social Impact / Customer Satisfaction	❖ This model would help in reducing the cost of processing insurance claims and lead to greater customer satisfaction. ❖ It can identify damage to all passenger cars. Damage range includes exterior parts, while environment range encompasses rain, snow, dark, bright light, etc..

5.	Business Model (Revenue Model)	❖ By paying the insurance company a fixed amount known as the premium (renewal premium rate can change). Policyholders have to pay premiums for their purchased policy at regular intervals, so that insurers can assume the financial responsibility to make good the losses or damages suffered by policyholders. ❖ There are 2 components of motor insurance i.e. own damage (OD) and third party (TP). OD covers for damages to vehicle, while TP covers for damages to public property, other passengers etc.
6.	Scalability of the Solution	❖ According to the statistics of vulnerable parts in vehicle exterior have been identified in this product. ❖ This product is aimed at types of vehicles appearance damage and also applied the deep learning target detection method