

## Project Design Phase-I

### Proposed Solution

Project Name	<b>Project - Intelligent Vehicle Damage Assessment &amp; Cost Estimator for Insurance Companies</b>
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#### Proposed Solution Template:

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

S.No	Parameter	Description
1.	Problem Statement (Problem to be solved)	There is always a risk of these assets being destroyed due to incidents beyond human control. A lot of money is being wasted in the car insurance business due to leakage claims. Claims leakage Underwriting leakage is characterized as the discrepancy between the actual payment of claims made and the sum that should have been paid if all of the industry's leading practices were applied. Visual examination and testing have been used to may these results. However, they impose delays in the processing of claims. They also may not work due to such events. Depending on the asset class, the type and weight of risk also vary. This is where insurance policies are useful. The problem that might arise is that the claimant may not know the amount of coverage that he/she has.
2.	Idea / Solution description	<ol style="list-style-type: none"><li>1. To develop an optimized and accurate deep learning architecture to detect the damage percentage and location of the damage with respect to the vehicle</li><li>2. Implementing classification algorithms to classify damaged regions and implementing the model in web based application</li><li>3. Create a user accessible portal and securely store the data provided by the user</li><li>4. Compare the obtained damage percentage with the statistical cost estimation value to predict the cost.</li></ol>

3.	Novelty / Uniqueness	<p>Intelligent damage determination systems can be used to determine the appearance damage of vehicles in small cases. The system completes the whole process of survey and damage determination through four functions.</p> <p>They are Accident investigation, Intelligent image damage assessment, Damage result output and Vehicle insurance anti-fraud</p>
4.	Social Impact / Customer Satisfaction	Then at last it generates a detailed report on analysis of the automobile and use this to claim one's reimbursement with the insurance company
5.	Business Model (Revenue Model)	<p>1. The business model will be a freemium model providing the prediction of damage intensity which will be useful for the vehicle owners to keep track of their vehicle damage and the credentials to access the webpage can be provided on the purchase of the vehicle insurance.</p> <p>2. The add-on subscription model can be initiated for the user where the damage cost is evaluated and provided to the users.</p> <p>3. The further revenue can be generated by tying up with the automobile parts manufacturers and distributors by promoting their products to the vehicle that has specified parts damaged.</p>
6.	Scalability of the Solution	It segregates the pictures based on 2 factors which are replace and repair. i.e. if the damage percentage exceeds say 80% then the damaged part has to be replaced, whereas in the other case "Replace" even in this case it calculates the reimbursement amount based on its damaged percentage