

## Project Design Phase-I

Date	27 September 2022
Team ID	PNT2022TMID28829
Project Name	Project – Intensity estimation of landslides
Maximum Marks	2 Marks

### Proposed Solution:

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Landslides brings heavy losses to life and the environment of the nature. The devastating effects of the landslides cannot be prevented at all, but safety measures can be taken in advance. The solution aims at estimating the intensity of the landslides from the satellite imaging (SAR)
2.	Idea / Solution description	We are proposing the deep learning based on CNN architecture for estimating the intensity of the landslides. Deep learning neural network will have an accurate landslide intensity detection. The features of the CNN model are given into a regression model which estimates the intensity of landslides
3.	Novelty / Uniqueness	We are proposing our very own architecture, which has a single CNN model for feature extraction and a machine learning model for regression.
4.	Social Impact / Customer Satisfaction	The model will be hosted in the cloud. In the web application, the user can upload the images and the location of the landslide; it will estimate and analyze the impact caused by the landslide. SAR is used to detect landslides often 15 days within days of the triggering event.
5.	Business Model (Revenue Model)	Once the model is deployed, we can use a pay per use or subscription model. Where users can pay for their usage.
6.	Scalability of the Solution	The proposed architecture is highly scalable. It can correctly predict the intensity of landslides that can occur over any parts of the Indian sub-continent