**Project Design Phase-I - Solution Fit Template**

**Project Title:** NATURAL DISASTERS INTENSITY ANALYSIS AND CLASSIFICATION USING ARTIFICIAL INTELLIGENCE

**Team ID:** PNT2022TMID29928

Define CS, fit into CC

### 1. CUSTOMER SEGMENT(S) — CS

Our customers are th common people,who will be benefited from the estimation of landslide intensity.They will take the necessary preautions measures

### 6. CUSTOMER CONSTRAINTS — CC

Normal people of the country, cannot able to access the real time Infrared Images. That Is the main constrains that every common citizen faces.

### 5. AVAILABLE SOLUTIONS — AS

Landslides susceptibility is a time -invariant concept that defines the probability of landslidesoccurence in an area based on a set of controlling factor .Landslide Susceptibility Zonation has been carried out widely all over the world demarate landslide vulnerable areas using remote sensing and geographical information system.

Explore AS, differentiate

Focus on J&P, tap into BE, understand RC

### 2. JOBS-TO-BE-DONE / PROBLEMS — J&P

Landslides estimation is a difficult tast that cannot be predicted easily.These landslides include modifying slope geometry ,using chemical agents to reinforce slope material,installing structures such as piles,and retaining walls,grouting rock joints and fissures diverting debris pathways.Landslides combination between CNN model and an H-BEMD algorthim.

### 9. PROBLEM ROOT CAUSE — RC

The problem exists beacause of data and technology in the past.That in a recent year the Indian satellite done a great job in giving the data.We have data from the 1998 since now.Deep learning algorthims requirees huge amount of data.

### 7. BEHAVIOUR — BE

Analysis of public behavior plays an important role in crisis management, disaster response, and evacuation planning. Unfortunately, collecting relevant data can be costly and finding meaningful information for analysis is challenging. A growing number of Location-based Social Network services provides time-stamped, geo-located data that opens new opportunities and solutions to a wide range of challenges

Focus on J&P, tap into BE, understand RC

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| **Identify strong TR & EM** | **3. TRIGGERS** TR<br>Landslides brings heavy loss to life and economy.So ,its necessary to hve a system that helps us estimating the landslide and thereby we an take necessary precautions measures.<br><br>**4. EMOTIONS: BEFORE / AFTER** EM<br>Before implementing this,we not aware of intensity of the landslide and the impact that is causes on the environment.We are not sure about the situation;Hence we have to be prepared for every circumstances.<br><br>After this, people and government can take necessary measures which makes them feel safe and secured. | **10. YOUR SOLUTION** SL<br>Deep learning is an extension of ANN.Deep learning uses multilevel deep nerual networks to extract featuresfrom the rwa input progreesively.The scale and complexity of the networks is the major differene between deep learning and traditional ANN. | **8.CHANNELS of BEHAVIOUR** CH<br>**8.1 ONLINE**<br>A web application that can take the input of the landslide images and output the estimation of the intensity<br><br>**8.2 OFFLINE**<br>Dissemination of information from nearby<br>Government agencies and NGO'S | **Extract online & offline CH of BE** |