

Preface

Landslides are a natural geologic phenomenon characterized by the downward movement of soil, rocks, or debris on slopes. They can occur in various forms, including rock falls, debris flows, and slope failures. Landslides pose significant risks to human lives, infrastructure, and the environment, making them a matter of concern for communities residing in hilly or mountainous regions. The causes of landslides are diverse and can be influenced by factors such as geological conditions, weathering, slope steepness, rainfall intensity, seismic activity, and human activities. Landslide real time inventory allows authority, researchers, students, public to get understanding about sensitivity of the place from time to time. Users will differentiate place from less hazardous zone to more hazardous zone, according to which capacity building exercise can be plan more efficient way also different safety measures can be taken from the real time data.

Idea behind development of this project was to provide real time landslide information to all the users with precise geographical information in latitude and longitude. Ensuring scalability of the system, this application can be scaled to various predictive analysis in GIS platform because point data of the application can be download from geoserver. This application will helpful for authorities to take precaution measures for place which is having more landslides in less time period. Data of the application will be helpful for researchers, tourists and most importantly local people, they can see the current landslide location with precise latitude and longitude along with all related information including type of the landslide and damaged assets accounting. Web application is integrated with open source technologies, from designing of wireframe to deployment environment which makes it more rapid in nature and strong as well as easy to handle.