LIST OF ABBREVATIONS

AHP - Analytical Hierarchical process

AMSRE - Advanced microwave scanning radiometer

ANN - Artificial Neural Network

ANFIS - Adaptive Neuro – Fuzzy Inference System

ASTER - Advanced space borne Thermal emission and Reflection Radiometer

ASTM – American Society for Testing Materials

BLR – Binary Logistic Regression

BMPTC – Building Materials and Technology Promotion Council

BS – Bishop Heber

BRT - Boosted Regression Tree

CNN - Convolutional Neural Network

BIS – Bureau of Indian Standards

CARTOSAT – Cartographic Satellite

CRED – Centre for Research on the Epidemiology of Disasters

CRRI – Central Road Research Institute

CTI - Compound topographic index

DEM – Digital Elevation Model

DST – Department of Science and Technology

DTRL – Defense Terrain Research Laboratory

EM – DAT – Emergency Event database

FEM - Finite element method

FL - Fuzzy Logic

FOS – Factor of Safety

FSE - Fuzzy Synthetic Evaluation

GCR – Ground Controlled Radar

GLCM - Gray Level Co-occurrence Matrix

GLM - Generalized Linear Model

GNSS – Global Navigational Satellite System

GOI – Government of India

GSI – Geological Survey of India

HFT - Himalayan Frontal Thrust

Ha – Hectares

IOE - Index of Entropy

IDLDR – International decade for landslide disaster risk reduction

IMD – Indian Regional Meteorological Department

IRS – Indian Remote Sensing Satellites

ISODATA - Iterative Self-Organizing Data Analysis Technique

ISRM – International Society for Rock Mechanics

JLS – Japanese Landslide Society

kN/m^3 – Kilo newton / Meter cube

kPa – Kilopascal

KW – Kilowatts

LANDSAT ETM – Enhanced Thematic Mapper

LANDSAT TM – Thematic Mapper

LEM – Limit Equilibrium Method

LIDAR – Light Detection and Ranging

LISS – Linear Imaging Self Scanning System

LNRF – Landslide Numerical Rating Factor

LR - Logistic Regression

LULC – Landuse Landcover

MBF - Main Boundary Fault

MC – Mohr Columb

MCDM - Multi-Criteria Decision Making

MLHEF - Modified Landslide Hazard Evaluation Factor

MM – Millimeter

MMLM – Multiscalar Method for Landslide Mitigation

MODFE – Modular Finite Element Model

MP – Morgan Pierce

Mpa – Mega Pascal

mts – Meters

MW – Megawatts

NDMA – National Disaster Management Authority

NDVI – Normalized Difference Vegetation Index

NH – National Highway

NIDM – National Institute of Disaster Management

NRDMS – Natural Resource Database Management System

NRSC – National Remote Sensing Centre

NT - Nahan Thrust

NW – North Western Himalayas

OFDA – Office of U.S. Foreign Disaster Assistance

OLR – Ordinary Logistic Regression

PCA - Principle component analysis

PSSA - Probabilistic slope stability analysis

RF - Random Forest

RNN - Recurrent Neural Network

RMR – Rock Mass Rating

ROC - Receiver Operating Characteristic Curve

RQD – Rock Quality Designation

SLIP – Shallow Landslide Instability Prediction

SLUSI – Soil and Landuse surveys of India

SMR – Slope Mass Rating

SOI – Survey of India

SPI - Stream power index

SPOT - Satellite for observation of Earth

Sq. mts – Square meters

Sq.kms – Square Kilometers

SRTM – Shuttle Radar Topographic Mission

SVM - Support Vector Machine

SVR - Hybrid Support Vector Regression

SAR – Synthetic Aperture Radar

UAV – Unmanned Aerial Vehicles

UCS – Uniaxial Compressive Strength

UN - United Nations

UNESCO - United Nations Educational, Scientific and Cultural Organization

VLC - Variable infiltration capacity

WEB GIS – Web based Geographic Information System

WIHG – Wadia Institute of Himalayan Geology

αj – Strike of the Slope

αs – Strike of the Joints

βj – Joint Dip angle

βs – Dip of Plunge

τf = Shear strength of Intact rock

C_i = Cohesion of the Rock material

$\sigma' n$ = Effective normal stress

$\emptyset$ = Internal friction of the angle