INFORMATICS INSTITUTE OF TECHNOLOGY

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Landslide Susceptibility Prediction in Sri Lanka using Image Processing

A Project Proposal by

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Abstract

In Sri Lanka, landslides are a common natural disaster that result in fatalities and damage to infrastructure. This study employs image processing methods to tackle the problem of landslide prediction in Sri Lanka. Although both conventional and deep learning methods have been used to forecast landslides, there is still a need for study on how to reliably predict landslides using image data. The study makes use of satellite images to locate landslide-prone locations and examine topographic changes over time. The suggested method uses machine learning algorithms to categorize the photographs and identify possible landslide hotspots. This research has significant potential to contribute to the development of landslide prediction systems, which can help mitigate the impact of this natural disaster in Sri Lanka.

Keywords- Landslides; Landslide Susceptibility Prediction; Image Processing; CNN; U-net;