Natural disaster intensity analysis and classification using artificial intelligence

Abstract

Natural disasters not only disturb the human ecological system but also destroy the properties and infrastructures of human societies and even lead to permanent change in the ecosystem. Disaster can be caused by naturally occurring events such as earthquakes, cyclones, floods, and wildfires. Many deep learning techniques have been applied by various researchers to detect and classify natural disasters to overcome losses in ecosystems, but detection of natural disasters still faces issues due to the imbalanced structures of images. To overcome this problem, we propose a multi-layered deep multi-spectral convolutional neural network.