CYCLONE DETECTION USING DEEP LEARNING AND IMAGE PROCESSING

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Abstract

Anyone in this world has heard of the disasters happen due to deadly cyclones. Some may have seen them and even some may have actually faced such situations. Thousands of people loss their loved ones, loss their properties annually due to this deadly disaster.

Even we don't have the ability to stop such disasters, but we can early predict them and place the people in safe locations. Where we could definitely save lives. For detecting such disasters, people have understood the environmental distortions happen before such disasters and use the information gathered to predict and figure out. But with the upscale of technology, people got the ability to view the environmental changes being above the ground level using arial vehicles. This what we call remote sensing. In the present, satellites were used to broadcast live video data to the ground for further processing. But most of the processing is done with human participation, which could definitely reduce the efficiency, accuracy and speed of processing.

In this Project, the author has come up with a computer-based solution which could increase the potential of determining a cyclone before it hits the human society. All the live data broadcasted by the satellite are gone through an image processing system and identify each frame's availability of a cyclone. Before the detection, the model has been trained using deep learning techniques.

Key words

Image Processing, Deep learning, Remote sensing