

NEURAL NETWORK ALGORITHM APPLIED TO DETECTION OF EDGES OF OCEAN IMAGE

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ABSTRACT

In this project, a boundary detection algorithm between edge and boundary in ocean images is presented. In ocean land images, different land types can have the same intensity signature but the floe size and shape can be different. To measure the flow size and shape, proper boundary detection is crucial. Due to the inherent speckle noise with ocean satellite images, boundary detection in ocean images can be challenging. The implemented technique eliminates the unwanted edges from the overestimated boundary to obtain the desired boundaries by measuring the strength of each edge and the boundaries to which it belongs. Artificial Neural Network has been applied to train the system based on the input images. After training the system any test image can be processed and feed to the ANN. A back propagation algorithm then classifies the edges.

KEYWORDS: Neural Network, Ocean Image, Image Analysis