

***IDENTIFICATION OF SEA FISH USING DEEP LEARNING  
CONVOLUTIONAL NEURAL NETWORK MODEL***

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***ABSTRACT***

*Convolutional Neural Network (CNN) is a model developed by Multilayer Perceptron and also one type of Deep Neural Network that is operated in images. In using the CNN model, it will be implemented in RoV regarding the detection of fish under the sea. The existence of the application of this system, the people who live as fisheries and fishermen can be helped by the daily livelihood process.*

*In CNN processing to identify fish at sea, there are several step layers, including convolution layer, max pooling, flatten, dropout and fully connected layer, which are designed to analyze a per-step data in the logical structure. With the use of the CNN model, there is a library to support the CNN process which consists of TensorFlow, Keras and Pillow which is used to make it easier to run a system of identifying fish.*

*The test results show the algorithm can detect fish from the left, right or top. The results of tests carried out in real time using camera pi, produce images and information in the shell with the notification "fish" when detected the presence of fish in the sea, and if the camera pi does not detect fish in the sea, the reverse will give you an "underwater" notification.*

***Keywords : CNN, RoV, Deep Learning, TensorFlow, Keras, Raspberry Pi, Layer, Fish***