ABSTARCT

Vanname shrimp is a high-quality variety of shrimp commodities in Indonesia. It has a high export demand. However, there are some diseases that deacrese the number of Vanname Shrimp productivity. One of the most common diseases that plague shrimp is the White Spot Syndrome or also known as WSSV. WSSV can be caused by several factor from its environment, one of which is the quality of shrimp pond water. Temperature, pH, dissolved oxygen and turbidity are the parameters of shrimp pond water quality. Using a technology called ASV (Autonomous Surface Vehicle), data of pH, temperature, DO and turbidity were obtained. From the data of these parameters the water quality can be modeled by using Fuzzy Neural Network method. The water-quality modeling aims to detect the risk of WSSV diseases on Vanname Shrimp. The end result of this research in the form of a class with the determination of water quality is good or bad which are displayed in the web monitoring system. The result of this research has a 99.2% accuracy rate.

Key word : Fuzzy Neural Network, Vanname shrimp, WSSV, ASV.