

Perancangan sistem identifikasi kapal dengan algoritma backpropagation neural network, long short-term memory dan convolutional neural network = Application of backpropagation neural networks, long short-term memory networks and convolutional neural networks in ship identification design

Toby Rufeo, author

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Abstrak

Skripsi ini membahas penggunaan arsitektur Long Short-Term Memory (LSTM) dalam merancang sebuah model identifikasi. Riset ini membahas pengaruh hyperparameter seperti jumlah hidden layer, jenis fungsi aktivasi, tipe optimizer, dan hyperparameter lainnya terhadap kinerja arsitektur neural network. Selebihnya, Skripsi ini juga membandingkan model Long Short Term Memory (LSTM) dengan arsitektur Convolutional Neural Network (CNN) dan Artificial Neural Network (ANN). Hasil dari penelitian skripsi ini menunjukkan bahwa arsitektur Long Short Term Memory menunjukkan hasil yang optimal pada sistem yang time dependent dan dinamis.

.....This paper discusses the application of Long Short-Term Memory Networks in designing a identification model. Firstly, this paper discusses the effect of different hyperparameters such as but not limited to: number of hidden layers, type of activation function, type of optimizer used on the performance of the neural network. Furthermore, this paper also compares the performance and effectiveness of different neural networks such as Convolutional Neural Network (CNN) and Artificial Neural Network (ANN) to a LSTM model. The result of this research shows that a Long Short-Term Memory (LSTM) network performs optimally in systems that are time-dependent and dynamic.>i/>