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# Agarwood Inoculation Time Prediction Using Deep Learning (Enhanced Feed Forward Neural Network)

Final Project Report (FPR)

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## ABSTRACT

In this research project, the author tries to identify the required features to be considered for an Agarwood inoculation process and introduce a new machine learning approach to the agarwood cultivation industry. This proposed method will try to automate several decision-making steps the user must go through to determine if the agarwood tree is ready for inoculation.

This study focuses on developing a system with the help of an enhanced feed-forward neural network to identify the matured trees ready for inoculation without the need for expert knowledge. All the trees selected for this research are from plantations, and no natural agarwood trees are considered. The critical parts of this research include data pre–processing, method selection and usage of Neural Network to predict the inoculation time of a tree.

**Keywords –** Agarwood inoculation prediction, Machine learning, Deep learning, Enhanced Feed-forward neural network, agarwood trees