

**A COMPARISON BETWEEN LEAST SQUARE METHOD
AND RUNGE-KUTTA-FEHLBERG IN PREDICTING THE RICE
PRODUCTION IN MALAYSIA**

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ABSTRACT

Over the past few decades, the idea of food security has gradually expanded and changed. From primarily concentrated on the availability of food and food production. The ability of the globe to produce and distribute rice is crucial to ensuring the food security of more than half of the world's population. However, because of COVID-19 pandemic, the world food crisis is becoming worse, highlighting the situation of 113 million people who are desperately in need of food. While in Malaysia, the heat of rice demand has been increased by year. This research had been inspired from previous study in helping to find the most accurate mathematical modelling to predict the number for rice production. This research will be focusing on finding the best method between Least Square method and Runge-Kutta-Fehlberg method by comparing the mean percentage absolute error for both methods. Based on the result of findings, the best method to predict rice yield production is Runge-Kutta-Fehlberg for 10 years approximation.

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