

**THE IMPLEMENTATION OF NEWTON DIVIDED DIFFERENCE
METHOD AND HERMITE INTERPOLATION METHOD TO
ESTIMATE THE VALUE OF REVENUE PRODUCED BY
INFORMATION AND COMMUNICATION SECTOR**

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ABSTRACT

This study is estimating the value of revenue produced by the information and communication sector using the method of Newton Forward Divided Difference, Newton Backward Divided Difference and Hermite Interpolation. The data utilized in this project was sourced from the Department of Statistics Malaysia, from year 2018 until 2023. The data obtained are in Ringgit Malaysia (in RM) and number of persons engaged, which it will produced the revenue value obtained by information and communication sector. The estimation values from each method will be compared with the actual values from the data to determine the error. The smallest error among three methods indicates the best numerical method in estimating the values for the data used in this project. In this research, Newton Backward Divided Difference method exhibits the smallest mean square error, which provides the best method to estimate the revenue of Information and Communication sector.

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Alhamdulillah, all praise is due to Allah SWT for His strength and blessings, which have granted me the opportunity to complete this report and fulfill one of the requirements for the Bachelor of Science in Mathematical Modelling and Analytics (Hons.). This project involves the implementation of Newton Divided Difference method and Hermite Interpolation method to estimate the value of revenue produced by information and communication sector.

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