

UNIVERSITI TEKNOLOGI MARA
TECHNICAL REPORT

**A COMPARISON OF INTEREST RATE FOR STUDY
LOAN USING NEWTON-RAPHSON METHOD**

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ABSTRACT

This paper examines the better interest rate of study loan for university students in Malaysia during higher education level. Currently, students need to find a better financial loan to support the expenses to study at a university. There are fees to pay for the courses and the need for finance of cost-of-living expenses higher education level. Most of the time students are not concerned about the interest rate on a loan application. This issue is crucial because they can decide which institution loan is better for them to choose a lower interest rate for their study loan. The objectives of this study are to solve the interest rate of ordinary annuity based on Newton-Raphson method and to identify the lower interest rate of a study loan from different financial institutions using Newton-Raphson method. Students may compare the interest rates amongst financial institutes by using the methodological steps of present value of ordinary annuity formulation, Newton-Raphson method formulation, equation derivation into a new derived equation, then finally do a data analysis for Yayasan Selangor and JPA. Therefore, they will choose the best rate to reduce the interest rate and payment. Furthermore, simple and easy to calculate and applied in real application. Plus, assist problems in non-linear equations. The method also allows students and other institutions to find interest rates more efficiently, make an estimate and obtain a close amount to the true answer.