The objective of this thesis is to compare Ridge estimators by comparing HOERL-KENNARD-BALDWIN method (HKB), HOERL-KENNARD method (HK), TZE-SAN-LEE method (TZE) and BINARY SEARCH method (BINARY). They are compared by using the ratio of average value of mean square error. By studying the residual distributions from normal, contaminated normal and lognormal distribution with mean of 1, for normal distribution with standard deviation of .05, .10 and .15, contaminated normal distribution with scale factors of 3 and 10 and percent contaminated of 5 and 10, lognormal distribution with M=1 and M=10. This study used sample sizes of 30, 50 and 100. The correlations among the independent variables are .70, .90 and .99 for the number of independent variables of 3 and (.70,.30), (.90,.90) and (.99,.99) for the number of independent variables of 5. The data is obtained through simulation using Monte Carlo technique, and repeating 200 times for each case.

The results of this study are as follows:

- 1. In case , Residuals have Normal and Contaminated Normal Distribution; In all cases , BINARY SEARCH method gives the best result but the result is closed to the result of HOERL-KENNARD method and HOERL-KENNARD-BALDWIN method. Thus, the average value of mean square error varies following the number of independent variables , level of correlation and variances but converse to the number of sample sizes.
- 2. In case, Residuals have Lognormal Distribution; In all cases, BINARY SEARCH method gives the best result but the result is closed to the result of TZE-SAN-LEE method when the number of sample sizes are small but variances, independent variables and correlation are high. Thus, the average value of mean square error varies following the number of independent variables, level of correlation and variances but converse to the number of sample sizes.