

## **Absract**

*The development of Geographic Information System (GIS) application now also penetrated into web-based application, better know as web GIS application. Fast data searching in answering questions related to location becomes a crucial requirement in the development of web GIS. A good system architecture and method of indexing become solution to solve this problem.*

*R\*-tree is one of the variant of R-tree which has improved the handling of overflow nodes. R\*-tree combining the optimization of area, margin and overlap of directory rectangle's coverage so it is believed that R\*-tree will provide optimum indexing performance.*

*This final task presents the analysis of R\*-tree method, analysis of the results are built, analysis the indexing process and searching based on processing time. From the research noted that the order affects the performance on create , search and overlap area of the R\*-tree, where the best conditions obtained on the order of  $m \leq 30\%$ .*

**Keyword** : *webGIS, spatial indexing, order , R\*-tree*