

## **ABSTRACT**

### **ESTIMATION OF PARAMETERS IN LINEAR MIXED MODEL**

**By**

**FRANSISKA OKTA SILVIA NINGRUM**

In this study introduces explained on the estimation of parameters in a linear mixed model. Linear mixed model is one that contains both fixed effect and random effect. The aims of this study is going to discuss about the estimation and testing hypothesis for parameters  $\beta$  and  $\gamma$  in linear mixed model. The simulation study by using SAS software are carried out the estimation and power of the test parameters  $\beta$  and  $\gamma$  are discuss. The results for simulation study show that the parameter estimators  $\beta$  is an over estimate while the parameter estimators  $\gamma$  is a biased estimator although the resulting difference is not much and then from the carried out to seek the power of the test, can be concluded that, if  $\beta$  and  $\gamma$  getting away from  $H_0$ , then the power of the test even bigger or opportunities reject  $H_0$  when  $H_0$  not true is the greater.

Kata Kunci : *linear mixed model, fixed effect, random effect, simulated, power of the test.*