

## **ABSTRACT**

### ***APPLICATION OF BOOKS INVENTORY FORECASTING IN PT. KANISIUS PEMASARAN PALEMBANG USING SINGLE EXPONENTIAL SMOOTHING (SES) ALGORITHM***

*Stock problem is a major problems in a companies, especially, for the company that engaget in marketing. The true problem at PT.Kanisius Pemasaran Palembang (KPP) in stocking goods, in the case books is the number of books that orderet to central company are unpredictable because the information of available books is uncertainly. To solving that problem, this study built a books forecasting system with single exponential smoothing (SES) method. This study using extreme programming (XP) methodology. System design using unified modeling language (UML) and the system implemented into PHP programming language. The data used in this study are data amount of book sales every month in a year at PT. Kanisius Pemasaran Palembang (KPP). The system works to determine alpha value first for forescasting, after that do the calculations to get forescasting values. The result from forescasting values will be measured the error degree using MAD, MSE, and moving range.*

*Keywords: Forecasting, Single Exponential Smoothing, MAD, MSE, Moving Range*