

## ***ABSTRACT***

*Line balancing is a method for assigning several jobs to a work station in one interrelated production track making the same station completion time at each workstation. The problem of stacking RSS1 balls in previous production and imbalance of production lines are the main problems faced by PTPN IX Blimbing. The purpose of this study is to analyze the performance of each process stage in the production system and provide a proposal for the design of the Flexsim 2019 software simulation model. The method used in this study is the discrete event system simulation method to model a dynamic system in which variables on the production floor change over time. Then utilizing the help of appropriate software, in this study using Flexim 2019 software, because the software has been widely used to improve the performance of a manufacturing production process and service or service system.*

***Keyword:*** *Discrete Event System Simulation, Flexsim 2019, Flowshop, Line balancing, Production Process*