

## **ABSTRACT**

*PT XYZ is a manufacturing company that produces electronic equipment. In this study, focusing on the production of Solar Modules 260 WP. Based on the data of the production of the year 2017, a problem that was found in the company is production achievement makes delay in product delivery. So with the existence of these problems, more research is needed regarding the problems occurred in the process of production of Solar Modules 260 WP using lean manufacturing.*

*The first step is. describing the production process by making the process activity mapping and value stream mapping (VSM) current state of Solar Module manufacturing process flow 260 WP. It is known lead time of 21151.24 seconds and value added time of 3404.37 seconds. Lead time contains a group of value added activities, necessary non-value added and non-value added. Based of process activity mapping there are activities that lead to waste waiting in the production process. The next stage is the second that is the root cause of a problem identify waste waiting by using fishbone. Therefore, the root cause of the activity that causes waste waiting will be diminimasi on the production floor by using the line balancing and structuring station sealant. After the draft proposal of the improvement is expected from the activity cycle-time aktivitas will be reduced or lost. The activities that cause waste waiting waiting for the arrival of the module for processing, waiting for the module to framing and module is waiting to sealant.*

*Based on the design of the proposed improvements, obtained lead time of 6185.39 seconds with value added activity of 3404.37 seconds by applying a balancing trajectory on workstation terminating, layup, EL, trimming E12, Sun Simulator, framing and testing and design of station sealant.*

*Key Word : Lean Manufacturing, Waste Waiting, Line Balancing, Value Stream Mapping, Process Activity Mapping*