## **ABSTRACT**

Capacity planning is an important step to achieve the production target, so it can minimize lack of production. Bad capacity planning systems can delay completion of the products which could reduce the volume of production and finally, the production target is not achieve and make delay in shipping the product to customers.

Indonesian Aerospace is one of the big companies in manufacturing. The resulting products are aircraft, helicopter and produce some of components such as part of aircraft and helicopter too. Based on existing condition, Indonesian Aerospace has frequent changes in demand every year. It makes the production in Machining department especially MPM have difficult problem in controlling inventory which can make under capacity. Therefore, in this study author propose solution decision support systems of capacity planning using RCCP method BOLA technique that can provide some alternative solutions in the decision to prevent under capacity.

The final results of this research is an application that can produces data capacity planning processing more accurate that can help Indonesian Aerospace making decisions in capacity planning whether to do additional capacity, sub contract or negotiation when there is under capacity. Based on the result of processed data, we can conclude that additional capacity is the best alternative to overcome under capacity because it produces the smallest total cost of Rp 74.700.000.

Keywords: Capacity planning, under capacity, decision