

# **An assignment slots solution approach for the two-sided assembly line balancing by using a hybrid semi-greedy artificial bee colony algorithms**

## **Abstract**

This study is about the implementation of the introduction of assignment slots to optimize the double-sided assembly line. This research was performed using hybrid Artificial Bee Colony and Semi-greedy algorithms. The main objective is to get the most optimal value. The introduction of this assignment slots is shown in detail in this paper with a total of 4 main cycles and P24 with CT = 18 as an example. Several tasks set with P9, P16, P24, P44 and P65 were tested with the same cycle time setting in the previous study. From the previous study, the partial fitness method has been tested and the results have been compared with this method. The results show that the introduction of this assignment slot is more effective to get the optimal value.