# ABSTRAK

Penelitian ini bertujuan untuk menentukan jadwal produksi di CV Jimbung Industrial untuk mengurangi tardiness dan lembur dengan algoritma priority dispatching. CV Jimbung Industrial merupakan industri konveksi yang memproduksi berdasarkan pesanan (*Make to Order*) dengan waktu kedatangan pesanan dinamis. Dimana kepuasan konsumen dan ketepatan waktu merupakan salah satu pertimbangan konsumen dalam memilih produsen.

Pendekatan yang digunakan dalam penelitian adalah algoritma *priority dispatching* dengan kombinasi prioritas saat paling awal (C*), *shortest processing time* (SPT), *earliert due date* (EDD), dan *first come first service* (FCFS). Prioritas disusun menjadi saat paling awal - *shortest processing time - earliert due date - first come first service* dan saat paling awal- *earliert due date - shortest processing time - first come first service*. Prioritas saat paling awal dipilih agar utilitas mesin atau stasiun kerja dapat ditingkatkan. Prioritas *earliest due date* dipilih agar *job* yang memiliki *due date* terdekat dapat segera diproses sehingga *tardiness* dapat diminimasi. Sedangkan pendekatan *shortest processing time* dipilih agar *job* yang memerlukan waktu proses yang singkat dapat segera diproses sehingga *tardiness* dapat diminimasi. Prioritas *first come first service* dipilih agar *job* yang datang lebih awal pada suatu pusat kerja akan dikerjakan lebih dahulu.

Hasil penelitian yang diperoleh menunjukan bahwa kombinasi prioritas saat paling awal - *earliert due date - shortest processing time - first come first service* memperoleh hasil yang lebih baik dengan minimasi biaya lembur dari Rp 1.500.000,- menjadi Rp 22.000,- dan *tardiness* dari satu hari menjadi nol hari. Biaya lembur dikeluarkan untuk mengerjakan *job* KD02 pada stasiun kerja bordir dengan waktu lembur selama 3 jam.



**Kata kunsi**: Penjadwalan *job shop*, saat paling awal (C*), *shortest processing time* (SPT), *earliert due date* (EDD), *first come first service* (FCFS)

# *ABSTRACT*

*This study aims to determine the production schedule at CV Jimbung Industrial to reduce tardiness and overtime with the priority dispatching algorithm. CV Jimbung Industrial is a convection industry that produces by order (Make to Order) with a dynamic order arrival time. Where consumer satisfaction and timeliness is one of the considerations of consumers in choosing a manufacturer.*

*The approach used in the study is the priority dispatching algorithm with a combination of the earliest priority (C *), shortest processing time (SPT), earliert due date (EDD), and first come first service (FCFS). Priorities are arranged as the earliest time - shortest processing time - earliert due date - first come first service and earliest time - earliert due date - shortest processing time - first come first service. Priority at the earliest is chosen so that the utility of the machine or work station can be increased. Earliest due date priority is chosen so that job that have the closest due date can be processed immediately so that tardiness can be minimized. While the shortest processing time approach is chosen so that job that require a short processing time can be processed immediately so that tardiness can be minimized. First come first service priority is chosen so that job that arrive early at a work center will be done first.*

*The results obtained show that the earliest priority combination - earliert due date - shortest processing time - first come first service gets better results with minimal overtime costs from Rp 1,500,000 to Rp 22,000 and tardiness from one day to zero day. Overtime costs are incurred to do KD02 job at the embroidery work station with overtime for 3 hours.*



***Key word**: job shop scheduling, earliest (C*), shortest processing time (SPT), earliert due date (EDD), first come first service* (*FCFS*)