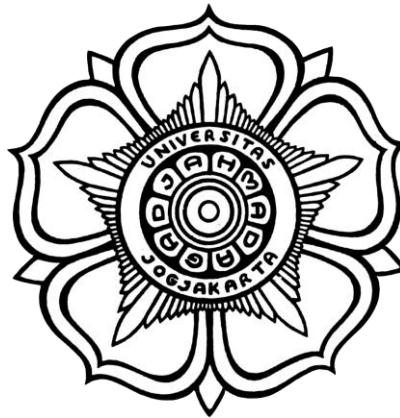


**APPLICATION OF IMPROVED MULTI-OBJECTIVE PARTICLE
SWARM OPTIMIZATION ALGORITHM TO SOLVE DISRUPTION
IN THE TWO-STAGE VEHICLE ROUTING PROBLEM WITH
TIME WINDOWS**

THESIS



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