Corrections to "Modeling Operator/Workstation Interference in Asynchronous Automatic Assembly Systems"*

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The following remarks should be added after Algorithm 1 in Section 3:

(1) θ_j, the number of failures per unit time for machine j, is intended for situations in which Algorithm 1 will be coupled with other queueing network solution algorithms. In those situations, θ_j should be recalculated during each iterative step of Algorithm 1. Steps to do this for the AAS model with interference are given in Section 4.

(2) The expression derived to approximately calculate var(I) yields negative values in some special cases. A step that sets var(I) to zero in these cases should be included during implementation.

In the explanation preceding Algorithm 2, the following shoul d be added:

The value of ρ_b (ρ − balanced case) remains constant during each iteration of the bisection algorithm. This implies that during each execution of Algorithm 1, ρ_b (ρ − balanced case) should remain constant. Hence, λ and θ_j (θ − balanced case) should be recalculated during each iterative step of Algorithm 1. The following steps should be added to the main loop of Algorithm 1:

{Heterogeneous Case}

$$\lambda = \frac{\rho_b}{t + \alpha_b^* E(D)};$$

for $j = 1$ to J do
$\theta_j = \lambda \alpha_{i_j}^*$;

{Homogeneous Case}

$$\lambda = \frac{\rho}{t + \alpha^* E(D)};$$

$$\theta = \lambda \alpha^*.$$

Listed below are two printing errors in the paper:

(1) Equation (7) on page 103 should be

$$v_{eff} = \text{(average number of busy operators) (operator service rate)}$$
$$= (E(K) - E(K_q))\ (1/E(C)).$$

(2) Second line of step 4 on page 108: change (i.e., n) to (i.e., N).

*M. Kamath and J.L. Sanders, "Modeling operator/workstation interference in asynchronous automatic assembly systems," *Discrete Event Dynamic Systems: Theory and Applications*, vol. 1, pp. 93–124, 1991.