Electronic board production process knowledge extraction for global optimization
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Electronic board production process knowledge extraction for global optimization

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Assess product quality from the analysis of event logs
Optimize the production process to reduce production cost and improve product quality

Penalty index of a batch $b_i$ of phase $d_k$:

$$p_b(b_i) = \sum_{k=1}^{N} \gamma_k \times (1 - \gamma_k) \times p(b_i)$$

Global penalty index of product $x_i$:

$$p_g(x_i) = \sum_{k=1}^{N} \gamma_k \times (1 - \gamma_k) \times p(b_i)$$

Parameter tuning (e.g. penalties)
- Work-in-progress (WIP) management
- WIP prediction models

Collaborative AI: Synergistic transformations in model-based and data-based diagnosis

Distributed data-based diagnosis and prognosis of equipment and subset toolings
Predictive maintenance and diagnosis of cobots