

Creating Cyber-Twin Across Multiple Scales of the Manufacturing Systems for Productivity Improvement: A Study Case for the Electronic Packaging Industry

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Abstract: - Layout optimization is important to improve space utilization and arrange material logistics within manufacturing plants. This paper will focus on creating a digital twin that allows optimization of production facility layout and visualizes material flows and production events within the facility. The created cyber-twin of the manufacturing systems will help identify potential bottlenecks across multiple scales, from individual workstations to assembly lines, to increase the overall productivity of the whole manufacturing system.

Keyword: Digital Twin, Optimization, Layout