

# Lean Transformation for Composite-Material Bonding Processes

Chiun-Ming Liu<sup>1,\*</sup>, Min-Shu Chiang<sup>2</sup>, and Wen-Chieh Chuang<sup>3</sup>

<sup>1,3</sup> Department of Industrial Engineering and Systems Management, Feng Chia University, Taichung, Taiwan.

<sup>2</sup> Aerospace Industrial Development Corp, Taichung, Taiwan.

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## Abstract

Composite materials can greatly reduce production and transportation costs and so that they are widely used in the aerospace industry. Traditional composite materials manufacturers are facing competitive challenges such as shorter delivery time, high quality, and quick response to customer demand. Lean methods have been effectively applied to various industries for improving production quality and efficiency. In this study, a framework of lean transformation are organized and presented in a systematic way. The proposed lean transformation techniques are implemented in an aerospace company to improve the composite-material bonding process. Implementation results suggest the overall productivity of the composite-material bonding process increase significantly due to the elimination of bottlenecks, reduction of cycle time, and decrease of WIP inventory. The proposed approach can be applied to other manufacturing enterprises for improving their productivity.

**Keywords:** Lean production, composite-material bonding process, productive capability

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\* Corresponding author. E-mail address: cmliu@fcu.edu.tw

Tel.: (04)24510531 ; Fax: (04)24510240

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