

## **Amphenol Corporation: Expanding Facility Capabilities**

**Julia Bradley, Kelly Gottstine, Tatum Kiff, Lydia Santucci, and Sara Stanziani**

Systems Science and Industrial Engineering  
Binghamton University, Binghamton, NY

Corresponding Author: [sstanz1@binghamton.edu](mailto:sstanz1@binghamton.edu)

**Author Note:** The authors are seniors matriculated at Binghamton University in the Industrial and Systems Engineering program that is part of the Thomas J. Watson School of Engineering. As part of their curriculum, the authors are enrolled in the course ISE 492: Systems Design Project taught by Dr. Mark Poliks. To fulfill the requirements for this course, the authors have been working on a project at the Amphenol Interconnect Products Corporation (IPC) in Endicott, NY since September 2019. They would like to thank their project sponsor Jeff Knight as well as their professors James Henenlotter and Dr. Mark Poliks for their continued guidance and mentorship through this process.

**Abstract:** Amphenol IPC is currently expanding the capabilities of their headquarters in Endicott, New York. In order to contribute to these efforts, this project has three main deliverables. The first deliverable is to create a Simio model using information obtained through time studies. The model results show estimated worker and machine utilizations as well as build times of new prototypes. These results can be used to help quote new projects, determine the placement of workers, and determine the batch size for each project. The model has been verified as it runs the way it was intended but cannot be validated due to restrictions. The second deliverable is to provide three clear methods of waste reduction based on research and observations of the operations occurring in the manufacturing area. The final deliverable is to design a process flow and value stream map for a new warehouse and distribution area within the facility.

*Keywords:* Simio Model, Waste Reduction, Process Flow