Plan Overview

A Data Management Plan created using DMPTool-Stage

Title: Additive Manufacturing for Spare Parts Supply Chain

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Additive Manufacturing for Spare Parts Supply Chain

Dr. Jin will take the responsibility for data management and monitoring the data management plan. His graduate student involved in this project will assist implementing the data management plan. This data management plan will be checked quarterly with a check list. The Department of Industrial and Systems Engineering at University of Tennessee at Knoxville (UTK) will take responsibility over time for decision about the data if the original personnel are no longer available.

The data will include features and demand patterns of spare parts used in this research and resulting solution data related to sourcing and network optimization. The data will be stored in text files or Excel spreadsheets. Features and demand pattern of spare parts will be collected or simulated throught the interactions with local businesses. The solution data will be generated through the models and algorithms to be developed in this research. No existing data will be used. The collected data will be cleaned and modified to protect credentials of collaborating businesses. The data will be manually checked for quality.

The collected and created data will be kept for ten years after the completion of the project.

The data include raw data and solution data along with the source codes implementing the algorithms to be developed during this project. The data will also include the business cases decision support tools (including source codes), reports and/or others. These raw data and solution data will be in text files and Excel spreadsheet. The algorithm program will inclulde Python and some other open source programs. The metadata can be created in the form of a
Readme file.

Most data will be stored on local computers at the Logsitics, Transportation, and Supply Chain lab and secured Trace systems at UTK. People authorized by the PI will have the access to the data. The decision support tools will be available through a website housed at UTK. There are no ethcial and privacy issues for the data involved in this project and no IRB protocol is applicable in this project. The University of Tennessee at Knoxville will hold the intellectual property rights to the data. Academic and research community, businesses, and government agencies may be interested in the data. They may use the data to make their decisions on whether and/or how to incorporate additive manufacturing in their supply chains. The PI plans to publish findings at academic journals and does not expect prospective publishers place any restrictions on other avenue of publications. The PI will retain the right to use the data in three years before opening it up to wider use at the completion of this project. The embargo periods are mainly for publisher reasons but the data will be available for reviewers and editors before the publication is accessible to the public.

Data will be permanently archived with University of Tennessee' Trace. The PI and his student will backup data from their local computers to UTK's Trace. Access to the data through UTK's Trace will be available for 10 years after the end of this project.