**Data Description and collection**

For my research, I will compare operational efficiency of uncontrolled environment (construction site) and optimized efficiency of controlled environment (simulation model). For getting efficiency of construction equipment on site, I will use accelerometer. Accelerometer will give me acceleration and by observing different patterns of accelerometer, I will calculate efficiency. For getting efficiency from simulation model, I will build simulation model and get steps of activity by videotaping activity on site.

The data will be collected in accelerometer which contains micro SSD.

I will collect experimental and video data on site. The experimental will be in numbers in unit of acceleration. This data will be analyzed using MATLAB.

The data will be collected using accelerometer which gives acceleration. Besides this, the observed activity will be videotaped by using simple canon video camera and tripod.

The data will be 100s of MBS as I will collect data for 14 hours (7 hours per day). Also, accelerometer gives 100 points per second, so it will comprise big number of data. The videotape will be done for 3 hours in total to observe the activity and to know sequence of activity.

**Metadata:**

I am planning to use CSMD as I will be using simulation model in my research and will run the model for 21 hours. CSMD will help me as it is hierarchal model to perform simulation and give raw data. It will also help to analyze and derive suitable data for my publications.

Data storage:

The data will be stored in micro SSD memory card and has been stored for a month. I am working on different methodologies for analyzing data and will start moving data to SSD hard drive once I start analyzing.

Back up Data:

For backing up data my data so that I may not be lost, I will be using shared folder provided by Oregon State University. The advisor has given me access to that and it can hold up to 100s gbs of data. It is cloud based storage.