Modern buildings are not only energy intensive, but also information intensive. The large amount of building operational data can fuel AI to uncover new data-driven knowledge, such as data-driven models, typical operation patterns, statistics, etc. The research in this area aims to apply the data mining technologies to discover the data-driven information from massive operational data of buildings, and then apply the knowledge to optimize the building energy consumption.







Big Data

Climate variables Time variables Energy consumption Occupancy schedule System operating parameters (temperature, humidity, flowrate, pressure, etc.)



Data Preprocessing



Interpretable machine learning

Optimization

Forecasting

Fault detection and diagnosis

####