

Watts App:

An Energy Analytics and Demand Response Advisor Tool



Santiago Gonzalez

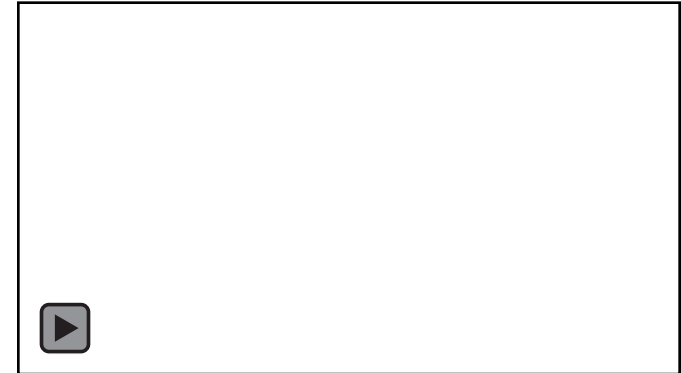
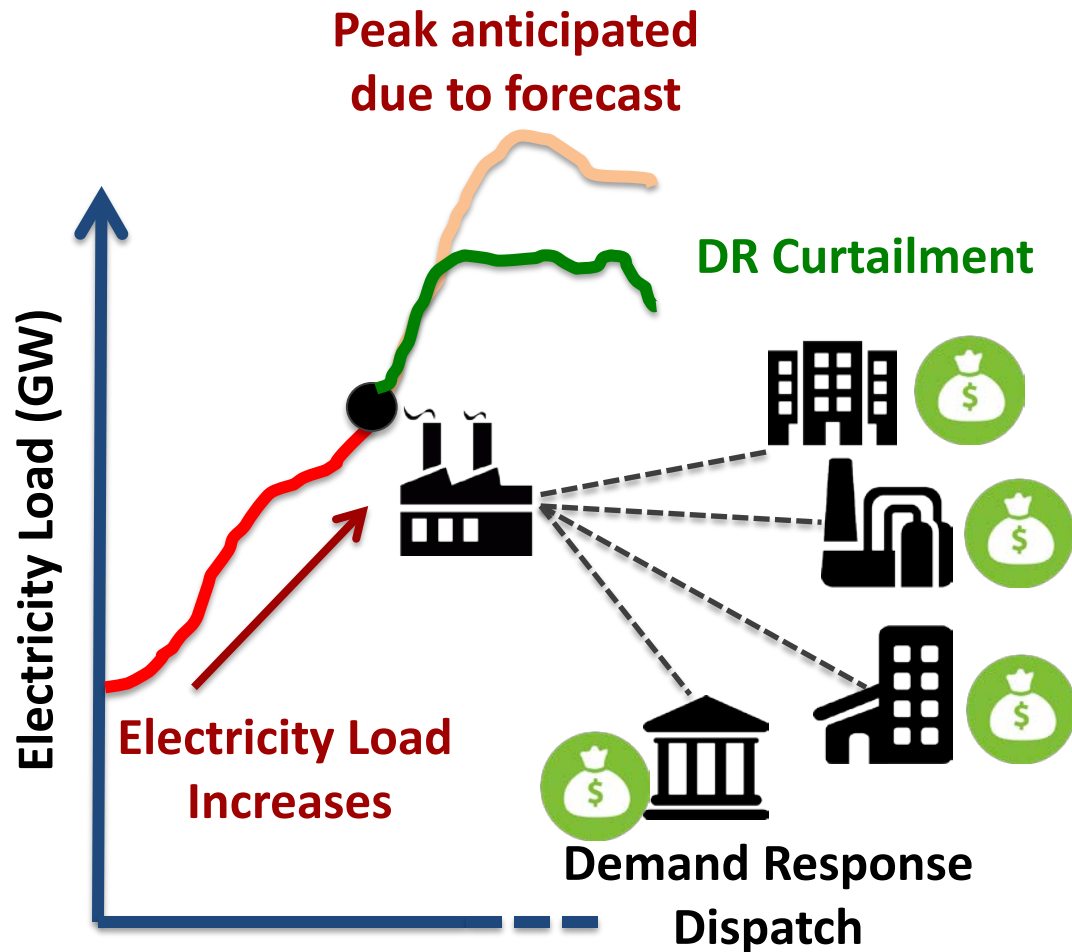
Case Western Reserve University

Electrical and Systems Engineering

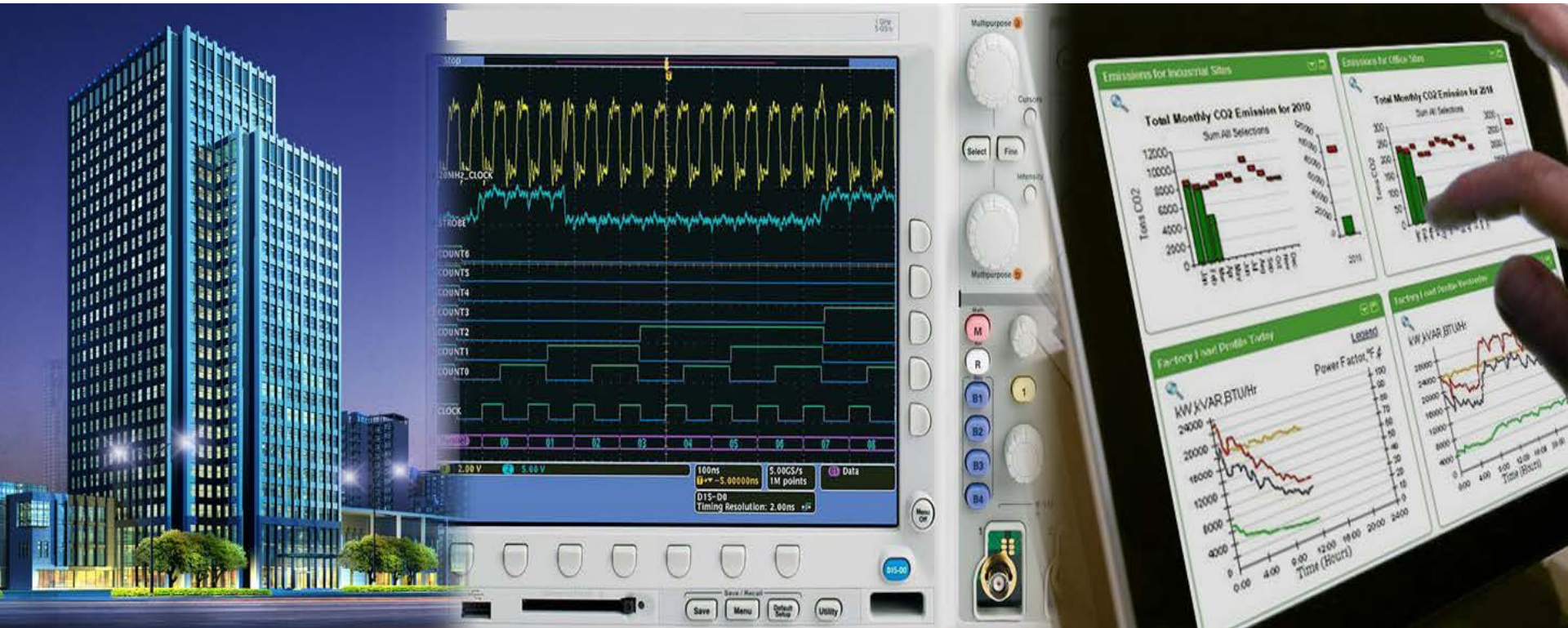
Advisors: Professor Rahul Mangharam and Madhur Behl

SUNFEST 2015

A Demand Response Event



DR-Advisor: Data-Driven Demand Response Recommender System



Missing Capabilities

1

Historical Data

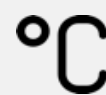
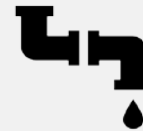
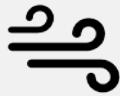
Temperature

Wind

Day Of Week

Chilled Water Temp.

Zone Temperature



Humidity

Time Of Day

Schedule

Lighting

Power (kW)

2

Query Regression Trees



Baseline Tree



DR Evaluation
Tree



24hr Prediction
Tree



DR Synthesis
Tree

Plug-ins for DR-Advisor



1

Preprocessing



2

Energy Analytics



3

