

Previous Work

Giovanni Bianchi: Single Evaluation of Building Energy Demand

Johannes Hofer: Detailed Model and Evaluation of PV Electricity Production

Prageeth Jayathissa: Parametric Thermal Model with Estimated PV

Master Thesis Goals

Combine to create Single Model
Design Parametric Simulation Tool
Evaluate multiple Scenarios

Long Term Goals

Implementation of
Model Predictive Control (MPC)
for Prototypes of ASF

Detailed Parametric Model
for ASF Design Considerations

- Add Bypass Diodes and String Connection to PV Model
- Implement RC Model
- Include Energy for Actuation

In Depth Analysis of
ASF Performance

- Extended Evaluation of individual Actuation
- Iterative Algorithm to increase Accuracy
- Life Cycle Analysis