

# Overview of available MSc level student projects

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## Abstract

A list of projects with titles and relevant tags.

## 1 MSc thesis projects

1. Influence of temperature on performance and lifetime of Solar Home Systems (standalone PV systems)  
*Tags: PV systems, system level modeling*
2. Design of a bidirectional flyback converter for enabling power-sharing in Solar Home Systems for rural electrification  
*Tags: Power electronics, modeling, experiments*
3. Hardware implementation of distributed control in interconnected Solar Home Systems for rural electrification  
*Tags: modeling, experiments*
4. Self-sufficient off-grid DC-appliances with energy storage as a modular solution for climbing up the rural electrification ladder  
*Tags: system level modeling, PV systems, storage*

## 2 SIP-2/Extra projects

1. Comparing PV technologies across meteorological conditions and normalized costs  
*Tags: PV system modeling, economic analysis*
2. Comparing batteries and super-caps for cost and lifetime trade-offs  
*Tags: energy storage, economic analysis, modeling*
3. Load prioritization for optimal PV system sizing for rural electrification  
*Tags: load profiles, PV system modeling, PV system sizing*

4. A simple methodology for optimal PV system sizing based on PV output and load profile analysis

*Tags: load profiles, PV system sizing, graphical analysis*