



### Project:

Research and development of control strategy for single-phase inverter using robust control technics based on Linear Matrix Inequalities (LMI)

### Researchers:

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### Objective:

The transfer functions of the inverters are very coupled which makes the control complex to be designed. The purpose of this work is to investigate others controls strategies that not use transfers functions in order to avoid coupled problems.

### Description:

For this project, we intend to use the single-phase inverter to control the voltage applied in linear and not linear loads working as a single-phase UPS. For this, we will use global stability techniques of Liapunov and Filippov applied together with linear matrix inequalities (LMIs).

### Funders:

