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Content

1. Energies Microgrid SG - This folder contains the following archives:

- 1.1 Energies_Solano_MicroGrid_SG.slx - Simulink file that contains the microgrid model
- 1.2 EnergiesMicroGrid_with_SG.m - Script file to start the simulation
- 1.3 Figures_EMS_MG1.m - Script file with the code to produce the figures presented in the paper
- 1.4 init_batt - Script file with containt the battery parameters
- 1.5 init_droop - Script file with containt the droop control parameters
- 1.6 init_FC - Script file with containt the droop control parameters
- 1.7 init_Load - Script file with containt the Load parameters
- 1.8 init_PVP - Script file with containt the PVP system parameters
- 1.9 init_SC - Script file with containt the Super Capacitor parameters
- 1.10 init_sm - Script file with containt the Synchronous Manchine parameters
- 1.11 init_VSC1 - Script file with containt the Voltage Source Converter 1 parameters
- 1.12 init_VSC2 - script file with containt the Voltage Source Converter 2 parameters

2. Energies Microgrid wo SG - This folder contains the following archives:

- 2.1 Energies_Solano_MicroGrid_wo_SG.slx - Simulink file that contains the microgrid model
- 2.2 EnergiesMicroGrid_withouth_SG.m - Script file to start the simulation
- 2.3 Figures_EMSb_MG1.m - Script file with the code to produce the figures presented in the paper
- 2.4 init_droop - Script file with containt the droop control parameters
- 2.5 init_Load - Script file with containt the Load parameters
- 2.6 init_VSC1 - Script file with containt the Voltage Source Converter 1 parameters
- 2.7 init_VSC2 - script file with containt the Voltage Source Converter 2 parameters

Simulate in accelerator mode recommended. It may require installing a MinGW-w64 compiler.

All models were created in MATLAB R2019b

Last modification on the 28th of July 2020

New versions and updates can be found at Matlab File Exchange following the link below:

<https://www.mathworks.com/matlabcentral/fileexchange/78919-a-modular-simulation-testbed-for-energy-management-in-ac-dc>