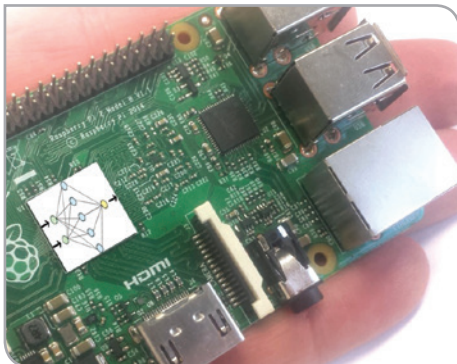


SDSO

Digital Industry

SDSO



Smart De-Centralized Self-Optimization on a Chip

SDSO provides low-cost controllers with smart-algorithms for de-centralized control for demand-side-management (DSM) in the electricity grid. They shift flexible energy loads to balance energy consumption and reduce energy costs.

Integrating renewable energy sources into the grid threatens its stability as the production is highly variable and creates energy valleys and peaks. They have to be compensated with expensive backup systems or storage. A cost-efficient alternative is to switch off temporally flexible energy consumers (flexible loads) when electricity is scarce and switch them on when electricity is abundant.

SDSO provides a de-centralized control mechanism that stabilizes the grid based on the automated real-time management of flexible loads (demand-side-management). Low-cost embedded hardware and smart algorithms recognize grid utilization and shift the energy consumption efficiently.



Competitive Advantages

- De-centralized automated load-shifting
- Real-time load management
- Predictive algorithms (planned)
- Easy-to-install with low CAPEX
- Highly scalable
- Blueprint for the de-centralized control of other industrial processes in digital industries



Target Markets

- High-energy industrial production (e.g. aluminium, steel, paper)
- Industrial production (e.g. car manufacturing)
- DSM for integration of renewables (national energy grids)
- Off-grid energy microgrids with need for energy storage



Status/Traction

- A pilot for SDSO de-centralized energy management will be implemented.
- Basic version of smart algorithms (patented) are available.
- Improved smart algorithms will be developed.
- Standard embedded hardware has been evaluated as basis for SDSO.
- Microgrid Simulation & Sizing tool will be modified and used for evaluating and marketing of SDSO.
- Partners are DFKI, Cefriel, Engineering, and TU Berlin



Road Map

2017

- Pilot project in car manufacturing
- Joint venture between DFKI, TU-Berlin and EasySmartGrid to bring product to market
- Establishment of core team for SDSO production and marketing

2018

- Establishment of second pilot
- Production of SDSO in small series
- Worldwide marketing of product
- Addition of new staff to SDSO core team



Connect



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SDSO

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