

lit offers energy monitoring using **NILM technology based on Machine Learning**. It measures the consumption of each device, providing kWh, CO₂ and expenditure data via app.

It monitors the power status in real time, reports faults and allows control of home automation devices via app.



Functionality



Direct measurements

The solution measures current and voltage, calculates active and reactive power, and reports the instantaneous active power of the building. It also calculates the $\rm CO_2$ emitted and the cost in Euro based on the user's contract.



Emissions and energy costs

The solution calculates the CO_2 emitted and the Euros spent per appliance, based on the cumulative consumption derived from the instantaneous consumption predicted by the disaggregation algorithm.



Real-Time Control and in-app notifications

The smartphone app shows the consumption status of the building unit and recognised appliances. Notifications inform the user about important data.



Monitoring Obsolescence and Malfunctions

The solution analyses the predicted consumption of household appliances to assess their obsolescence and detect malfunctions, using historical data.



Home automation integration

Home automation device APIs, including Matter I, are integrated for remote control of devices via the app.



SDK and API

The SDK under development allows modular integration with other home automation solutions and the creation of customised monitoring solutions.





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