

Olga Savchuk

B.Sc. Ecology, Environmental Sciences and Sustainability (Ukraine)

Thesis: 'Bio-remediation and forecasting of radio-ecological situation at the fodder lands of the flooded meadows'

M.Sc. Energy and Environmental Sciences (The Netherlands)

Thesis 1: 'Design and assessment of self-sufficient energy systems scenarios for Dutch communities'

Thesis 2: 'Assessment of decentralized energy systems: Case of the Netherlands'

Ph.D. Sustainable Energy Systems (Portugal)

Working title: 'Machine learning for Small-scale energy systems'

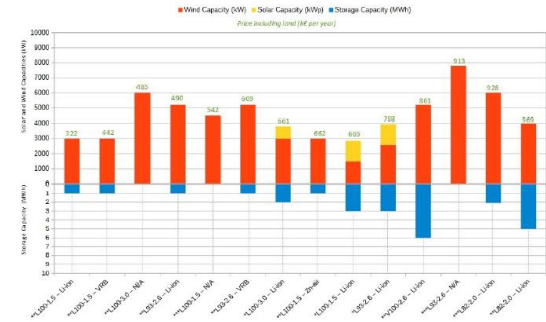


Figure 5.2. Wind, PV and storage combinations, arranged by total system price.

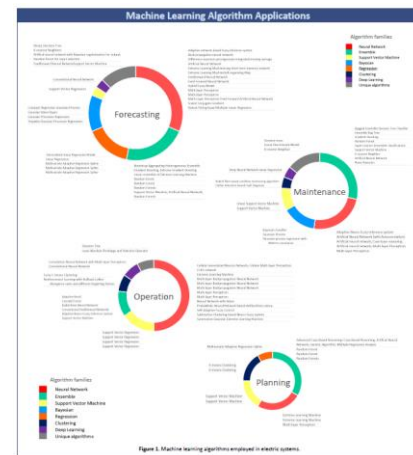
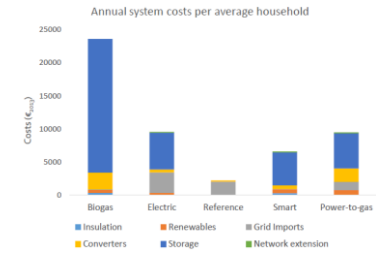


Figure 6. Machine learning algorithms employed in electric systems.

Machine learning building load prediction

Short-term cooling load prediction of a campus building based on time, weather and historical cooling load using seven machine learning techniques and different methods to extract the features.



Ray and Maria Stata Center – MIT, Wikimedia

Extracted features

Basic features

Engineering features

Statistical features

Structural features

Deep learning features

ML techniques

Multiple linear regression

Elastic net

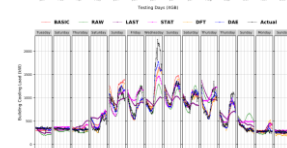
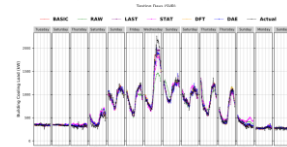
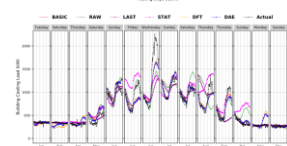
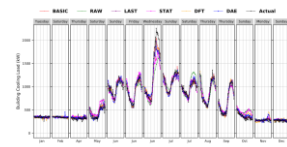
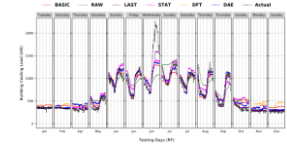
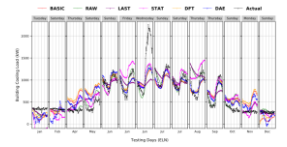
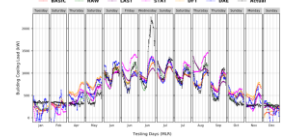
Random forest

Gradient boosting machine

Support vector machine

Extreme gradient boosting

Deep neural network



Thanks!



Feel free to get in touch:

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