Comparison of solar energy prediction models with experimental data for solar output

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Abstract

In this work it is discussed the assessment of solar potential, feasibility analysis for a specific region in Albania. Statistical evaluations are made in terms of technical parameters, capacity for power installation, generation and generalization on economic parameters. Forecasting the power production of grid-connected photovoltaic (PV) power plants is essential for both the profitability and the prospects of the technology. Artificial Neural Networks will be analyzed for the prediction of the energy produced by comparing it with the experimental data. represents a common approach in calculating the expected power output from numerical weather prediction data. The model selection has a high effect on physical PV power forecasting accuracy, the calculations are made to evaluate the difference between the models in terms of mean absolute error (MAE), root mean square error (RMSE) for a PV plant.

References

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