Detailed parameters of Sarajevo solar air conditioning

Overview

In this paper AQI is calculated based on historical data and the hybrid model EMD-SARIMA for air pollution and a solar production forecast is presented. Sarajevo, Federation of B&H, Bosnia and Herzegovina (latitude: 43. 3856) is a suitable location for generating solar power year-round. During the summer season, an average of 7. 00 kWh per day per kW of installed solar can be expected, while in autumn this figure drops to 3. Free data from Google Earth and Open Street Map Services were utilized to create DEM and partial DSM. Solar potential analysis was conducted using GRASS GIS and SAGA GIS software. The use of Geographic Information Systems (GIS) represents the most significant technological and conceptual approach to spatial data analysis. Using existing models for calculating incoming solar radiation. This study aims to assess the solar potential of Sarajevo's settlement roofs using GIS and partial DSM techniques.

Detailed parameters of Sarajevo solar air conditioning

[(PDF) Analysis of Solar Energy Potential and Optimal Panel Tilt Angle]

This study investigates the most suitable solar radiation model that converts GHI into DNI for Korea, using measurement data of the city of Daejeon from 2007 to 2009.

[(PDF) Integration of PV into the Sarajevo Canton Energy System-Air]

However, solar energy penetration in Bosnia and Herzegovina, and its capital Sarajevo, is not in line with the possibilities. Furthermore, the Sarajevo Canton is extremely polluted during the winter ...

[Experimental investigation of a solar-assisted air conditioning system]

In this research, the impact of ACs on reducing energy consumption in the case of supporting AC systems used in residential air conditioning with solar energy from renewable energy ...

[Effect of critical parameters on the performance of integrated climate]

Detailed experimental analysis is presented in terms of system's coefficient of performance, cooling capacity, moisture removal rate, dehumidification effectiveness, supply outlet ...

[(PDF) Empirical Model for Estimating Solar Radiation Based on Air]

Two models were developed to provide accurate solar radiation predictions, which can be used to improve the planning and implementation of a solar energy project in the region.

[Estimation of Solar Potential on Sarajevo s Settlement Roofs ...]

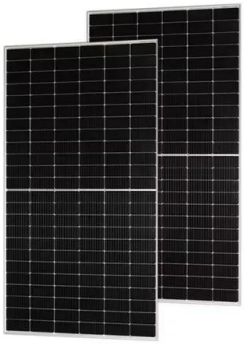
Solar energy is a crucial renewable resource for mitigating air pol-lution and improving energy sustainability. This study aims to assess the solar potential of Sarajevo's settlement roofs using GIS ...

[Integration of PV into the Sarajevo Canton Energy System-Air]

In this paper AQI is calculated based on historical data and the hybrid model EMD-SARIMA for air pollution and a solar production forecast is presented. The methodology was tested in the Sarajevo ...

[Solar PV Analysis of Sarajevo, Bosnia And Herzegovina]

The ideal angle for tilting solar panels at this location is 37 degrees facing south, which maximizes sunlight exposure throughout the year. Summer and spring are particularly favorable seasons for ...



[(PDF) Calculating and comparing solar radiation results using GIS in]

Using existing models for calculating incoming solar radiation integrated in the GRASS GIS and SAGA GIS software, we achieved the goal and calculated the results for solar energy potential in the city of ...

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