

# THE DEVELOPMENT OF KOREAN TYPE SOLAR ENERGY RESOURCES QUANTITY MATCHING AND EVALUATION SYSTEM USING GIS

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## Abstract

The interest toward new renewable energy in relation to securing eco-friendly resources is increasing due to the environmental problems such as global warming and the importance of reducing greenhouse gas.

Due to this, various research & developments using GIS analysis method are being performed for the national new renewable energy resources information. In this study, sunlight analysis system to be used for the evaluation of new renewable resources quantity including solar energy has been developed while enabling performance of shadow analysis and simulation according to the solar azimuth using the existing GIS and video data. In addition, the extraction of space information of the impact factor was developed for the resource quantity evaluation.

In conclusion, the sunlight analysis system developed through this study can be used for the development of national new energy management system by computerization of the data based on spatial information. It is expected to achieve the efficient management of the main location for green growth renewable energy.

Keyword: Renewable energy, Solar, Analysis System, Green Growth, Simulation