

지리정보시스템을 이용한 소수력자원 분포 연구

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A Study on Distribution of Small Hydropower Resources Using GIS

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Small hydropower is one of the many types of new and renewable energy, which South Korea is planning to develop, as the country is abundant in endowed resources. In order to fully utilize small hydropower resources, there is a need for greater precision in quantifying small hydropower resources and establish an environment in which energy sources can be discovered using the small hydropower geographic information system. This study has given greater precision to calculating annual electricity generation and installed capacity of small hydropower plants of 117 medium basins by inquiring into average annual rainfall, basin area and runoff coefficient, which is anticipated to promote small hydropower resources utilization. Small hydropower geographic information system was also established by additionally providing base information on quantified small hydropower resources and analysis function and small hydropower generator status, rivers, basin, rainfall gauging station, water level gauging station etc.. Established system of GIS small hydropower energy can be used gather basic information for positive applications of small hydropower energy nationwide.

Key words : Small hydropower(소수력), Geographic information system(지리정보시스템), Installed capacity(시설용량), Annual electricity generation(연간전기생산량).

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