

Application of a Distribution Rainfall-Runoff Model on the Nakdong River Basin

김광섭*, 순명동**

Gwangseob Kim, Mingdong Sun

.....
Abstract

The applicability of a distributed rainfall-runoff model for large river basin flood forecasts is analyzed by applying the model to the Nakdong River basin. The spatially explicit hydrologic model was constructed and calibrated by the several storm events. The assimilation of the large scale Nakdong River basin were conducted by calibrating the sub-basin channel outflow, dam discharge in the basin rainfall-runoff model. The applicability of automatic and semi-automatic calibration methods was analyzed for real time calibrations. Further an ensemble distributed rainfall runoff model has been developed to measure the runoff hydrograph generated for any temporally-spatially varied rainfall events, also the runoff of basin can be forecast at any location as well. The results of distributed rainfall-runoff model are very useful for flood managements on the large scale basins. That offer facile, realistic management method for the avoiding the potential flooding impacts and provide a reference for the construct and developing of flood control facilities.

Key words : Distribution Rainfall-Runoff Model, Nakdong River Basin, Large Scale

.....

감사의 글

This study was financially supported by the Construction Technology Innovation Program through the Research Center of Flood Defence Technology for Next Generation in Korea Institute of Construction & Transportation Technology Evaluation and Planning of Ministry of Land, Transport and Maritime Affairs

* 정회원 · 경북대학교 공과대학 건축토목공학부 부교수 · E-mail : kings@knu.ac.kr

** 교신저자 · 경북대학교 공과대학 건축토목공학부 박사과정 · E-mail : mingdongsun@hotmail.com