

# 베이지안 네트워크를 적용한 홍수 위험도 분석

## Application of Bayesian Networks for Flood Risk Analysis

선우우연\*, 이길성\*\*, 정은성\*\*\*

Woo Yeon Sun Woo, Kil Seong Lee, Eun Sung Chung

.....

### 요 지

As the features of recent flood are spatially concentrated, loss of life and property increase by the impact of climate change. In addition to this the public interest in water control information is increased and socially reasonable justification of water control policy is needed. It is necessary to estimate the flood risk in order to let people know the status of flood control and establish flood control policy. For accurate flood risk analysis, we should consider inter-relation between causal factors of flood damage. Hence, flood risk analysis should be applied to interdependence of the factors selected. The Bayesian networks are ideally suited to assist decision-making in situations where there is uncertainty in the data and where the variables are highly interlinked. In this research, to provide more proper water control information the flood risk analysis is performed using the Bayesian networks to handle uncertainty and dependency among 13 specific proxy variables.

**핵심용어** : Flood risk, Bayesian networks

---

\* 서울대학교 공과대학 건설환경공학부 석사과정 · E-mail : [swwy@snu.ac.kr](mailto:swwy@snu.ac.kr)

\*\* 정회원 · 서울대학교 공과대학 건설환경공학부 교수 · E-mail : [kilselee@snu.ac.kr](mailto:kilselee@snu.ac.kr)

\*\*\* 정회원 · 서울과학기술대학교 건설공학부 조교수 · E-mail : [eschung@seoultech.ac.kr](mailto:eschung@seoultech.ac.kr)