



Introduction of “Development of Advanced Techniques in Combined Inland-River Systems for Reducing Urban Inundation”

Young-Il Moon, Min-Seok Kim, Jung-hwan Lee, and Ji-Hyeok Choi
The University of Seoul, Seoul, Korea, Republic Of (ymoon@uos.ac.kr)

Recently, the importance of reducing urban inundation has become more evident as urban floods have increased the casualties and property damage due to climate change. But there have been no studies related to the improvement of abilities of reducing urban inundation in combined inland-river systems, both domestic and international. In order to reduce internal inundation effectively, it is essential to develop flood prediction, warning systems and advance techniques in combined inland-river systems. The purpose of this study is to introduce an integrated flood forecasting system that reduces the casualties and property damage from urban floods. Our research team is divided into 3 groups. Division 1 is responsible for advanced technology of inland-river flood risk and inundation prediction. Division 2 studies development of advanced technology for the design and performance improvements of urban flood control facility considering river and inland floods. Lastly, division 3 looks into the development of advanced techniques in combined inland-river systems for reducing urban inundation. It is expected that this method will contribute greatly to the reduction of damage and further improve the level of disaster prevention technology caused by natural disasters, through the application of the combined Inland-River systems for reducing urban inundation.

Keywords: Urban flood, Climate change, Development of Advanced Techniques in combined Inland-River Systems

Acknowledgments

This research was supported by a grant (17AWMP-B066744-05) from Advanced Water Management Research Program (AWMP) funded by Ministry of Land, Infrastructure and Transport of Korean government.