



## **Flood Hazard and Risk Analysis in Urban Area**

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Typhoons always induce heavy rainfall during summer and autumn seasons in Taiwan. Extreme weather in recent years often causes severe flooding which result in serious losses of life and property. With the rapid industrial and commercial development, people care about not only the quality of life, but also the safety of life and property. So the impact of life and property due to disaster is the most serious problem concerned by the residents. For the mitigation of the disaster impact, the flood hazard and risk analysis play an important role for the disaster prevention and mitigation. In this study, the vulnerability of Kaohsiung city was evaluated by statistics of social development factor. The hazard factors of Kaohsiung city was calculated by simulated flood depth of six different return periods and four typhoon events which result in serious flooding in Kaohsiung city. The flood risk can be obtained by means of the flood hazard and social vulnerability. The analysis results provide authority to strengthen disaster preparedness and to set up more resources in high risk areas.