

Catalogues Of Hydrologic Analysis For Hydro-resilient Asia Pacific Region

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In the Asia-Pacific regions, various hydrologic analysis methods have been applied for designs of hydraulic structures, river improvement works, rainfall-runoff predictions, flood and inundation prediction and so on. These hydrologic analysis methods have different characteristics in terms of climate, topography, development history of the catchments, etc. To develop a platform to share these hydrologic analysis methods is quite helpful to improve the ability for estimating water-related hazard risks and reduce the damage of disasters; however, most of researchers and engineers do not have knowledge of analysis methods used at the other countries and sectors in the Asia-Pacific region.

To improve this situation and enhance the risk estimation ability in Asia-Pacific region research and engineering communities, we form a research team and develop a hydroinformatics platform in the Asia-Pacific region for realizing hydrohazard resilient Asia. Specifically, to enhance the ability for evaluating water-related disaster risks, we develop a Catalogue of Hydrologic Analysis, CHA with the collaboration of researchers and engineers in the Asia-Pacific region, not limited to but including IHP-Regional Steering Committee members and with the support of Japan Funds in Trust.

The purpose of CHA is to collect documents and software for various hydrologic analysis methods from practical use to advanced studies for short-term rainfall prediction, rainfall-runoff prediction, flood and inundation prediction, hydrologic frequency analysis, and eco-hydrology, which will be freely accessed through the CHA home page. Developing CHA and share the knowledge through the CHA, we provide a platform to improve the ability for evaluating water-related disaster risks, which will strengthen the cooperation among researchers, governmental agencies and private sectors; serve to reduce the damage of water-related disasters; and will be a local contribution to achieve targets of SDGs and UNESCO IHP-VIII.