



3 **Lessening the Vulnerability of Structures in Bangkok to Impacts of Distant Large Earthquakes** Page 3

Even though Bangkok is located at a remote distance from seismic sources, a recent seismic hazard study shows that Bangkok is still at risk from damaging ground motions induced by distant large earthquakes. This paper discusses the on-going researches aiming to develop appropriate seismic design requirements for buildings against the effects of distant large earthquakes.



12 **Analyzing Urban Flood Risk Using a Distributed Mathematical Model** Page 12

Mathematical models can be effectively used for risk analysis. Distributed physically-based hydrologic models are considered the most suitable due to their ability to take into account the spatial heterogeneity and their easy integration with GIS. This paper presents a flood risk analysis of an urban area using a distributed mathematical model.



20 **Air Traffic Distribution in Multiple-Airport Areas** Page 20

This paper presents the air traffic distribution rules in most of the world's metropolis and exhibits Tokyo as a case. It prescribes a method of evaluating alternative rules using passenger benefit as the main consideration. The model is applied to Tokyo where the alternative distribution rules are evaluated.



28 **Laying the Foundation Works for the World's Largest RCC Dam** Page 28

The Tha Dan Dam irrigation and flood control project was envisioned to become the largest Roller-Compacted Concrete (RCC) dam in the world in terms of volume. The King of Thailand suggested its construction in December 1993 to improve the agricultural and flood conditions in the Central Plain of Thailand. This paper discusses the foundation works that were undertaken in the project.



36 **Interface Conflicts on Large Construction Projects** Page 36

Experience in many large construction projects in Thailand suggests that conflict transpires frequently between construction projects and groups outside of the projects. Thus, it is appropriate to examine the attitude on the factors leading to conflicts in order to understand what interest groups and project participants can do to reduce their adverse effects.



46 **How to Allocate Water to Competing Sectors?** Page 46

This paper presents an Integrated Water Allocation Model (IWAM) that takes into consideration the socio-economic, environmental, and technical conditions under a scarcity situation. The model optimizes either two single objectives independently using a linear programming technique or two objectives together applying a multi-objective compromise technique.