Book Review

Modeling Uncertainty in Flood Forecasting Systems, by Shreedhar Maskey, Taylor and Francis Group plc, London, UK (ISBN 90-5809-6947)

This book deals with uncertainty in flood forecasting systems. Author bases his approach by observing that "like all natural hazards flooding is complex and inherently uncertain phenomenon." Author applies probability theory and fuzzy sets based theory; central point is the development of improved first-order second moment method using a second-order reconstruction of the model function.

The temporal disaggregation method, presented in Chapter 4 (the previous one dealing with genuine randomness, fuzziness or their hybrid) is utilized in Chapter 5 to flood forecasting model of Klodzko catchment located on the river Nysa Klodzka in Poland; Chapter 6 utilizes the same model for Loire River in France. Author recommends risk based flood forecasting and warning systems.

This book is an excellent one. It is directed to the skeptic engineers who still refuse to embrace concept of uncertainty and continue to use deterministic approaches. This is due to the fact that books dealing with uncertainty seldom include any practical application. Therefore, many engineers assume that uncertainty modeling, be it of probabilistic, fuzzy, or convex nature, are reserved for research only. This book is a welcome harbinger which paves the way to systematic uncertainty analysis as an extremely practical problem.

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