Peramalan Aliran Masukan Waduk Mrica Menggunakan ModelThomas-Fieringdan Jaringan Syaraf Tiruan ANFIS

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Abstract	Inflow forecasting in hydrology processes is important tool in water resources management,planning, and utilization.Ã‚Â The fulfillment of this operational hydrology isvery applicable, especially where onlyan insufficient amount of data collected over anÃ‚Â insufficient length of time is available. The Thomas-Fiering Method is one of the most useful and widely used synthetic flow models.Ã‚Â In last yearÃ¢Â€Â™s, ArtificialNeural Network (ANN)method and Fuzzy Logic have introduced in hydrological processes.Ã‚Â Mrica hydropower reservoir in Central Java, Indonesia, has suffered water sustainability andenergy sustainability problems sinceÃ‚Â the reservoir management used simple-operator judged waterinflow forecasting method. In this paper, an ANN and Fuzzy LogicÃ‚Â hybrid algorithm calledAdaptive Neuro-Fuzzy Inference System(ANFIS) and Thomas-Fiering model are employed to estimateÃ‚Â water inflow to the Mrica reservoir. ANFIS performs better for long-range inflow forecasting, while Thomas-Fiering model wasÃ‚Â better for short-range forecasting.
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