1056-39-398   **Adam B Baharum** (`adam@cs.usm.my`), School of Mathematical Sciences, Universiti Sains Malaysia, 11800 Penang, Malaysia, **AlQahtani Hessah*** (`hussahq@hotmail.com`), School of Mathematical Sciences, Universiti Sains Malaysia, Penang, 11800, Saudi Arabia, **Zalila B Ali** (`zalila@cs.usm.my`), School of Mathematical Sciences, Universiti Sains Malaysia, 11800 Penang, Malaysia, **Habibah B Latih** (`habibah@usm.my`), School of Mathematical Sciences, Universiti Sains Malaysia, 11800 Penang, Malaysia, and **Swee Peng Koay**, School of Mathematical Sciences, Universiti Sains Malaysia, 11800 Penang, Malaysia. *Modeling of Groundwater Level of a Specified Cut Slope.*

In active landslide, the prediction of acceleration of movement is crucial issue for the design and performance of warning systems. Landslide occurs when a sudden increase beyond the critical level of groundwater. This is especially true in tropical weather during the wet season. The purpose of this study is to use numerical model to simulate groundwater flow. The goal of this modeling is to predict the value of unknown nodal points in the groundwater piezometric head. The numerical technique used is the finite difference method. The finite difference method one of the oldest, most general applicable and most easily understood methods of obtaining numerical solution to steady and unsteady groundwater problems. After we obtain the algebraic approximation equations for each node in solution boundary domain, we solve them with digital computer program. Our research presents a broad, comprehensive overview of the fundamental concepts and applications of computerized groundwater modeling. The research covers finite difference method and includes simulation runs to demonstrate theoretical points described. Our model is able to predict the value of aquifer parameters in particular slope. (Received September 04, 2009)