

المُلخَص

الإنجليزي

## Using GIS in the Applied Geomorphology Studies for Siwa Depression

This thesis contains an introduction and five chapters. **The First chapter** is assigned for GIS studying and how to use it in the geomorphological studies. **The Second Chapter** studies the physical geographical characters, such as geology, climatology, topography, ground water and soil characters. **The Third Chapter** contains the morphological study (elevation, slopes and profiles analysis). **The Fourth Chapter** is assigned for the geomorphological map studying beginning of the scarpes geomorphological phenomenon (north scarpement, ridges hills, drainage and sand dunes) and finally studying the bottom depression geomorphological phenomenon such as isolated hills, saline lakes, salt flats, sabkas, nebkas and solution hollows), while **The Fifth Chapter** is assigned for the applied geomorphology for Siwa depression divided into two parts, the first about the geomorphological hazards (salt weathering, subsurface water rise, rock fall and sand dunes movements" and the second Part contains the development map proposal according to the previous study.