



Geology Department, Faculty of Science, Assiut University

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Outline: Geology Department, Faculty of Science, University Assiut was established in 1957. Faculty of Science has been characterized by a unique teaching system: the common department system. Such system makes the faculty responsible for teaching all courses of the basic sciences to undergraduate as well as to graduate students of different faculties of the university. One of the mission and strategies of the Faculty of Science is conducting the academic research concerning several branches such as: Mathematics, Physics, Chemistry, Geology, Botany, and Zoology. Geology Department has many academic research topics and some of them are dedicating to study topics related to natural disasters, for instance; flash floods, Seismology, Earthquake, Structural Geology, Volcanology, landslides, etc. There are different laboratories at Geology Department, such as: Geophysical, GIS and Remote Sensing, Sedimentology, Engineering Geology labs, they are dedicating for academic research and students education.

Some of Research Activities

1. Applied Environmental Geosciences and Water Resources Management

This project is organized and conducted by joint cooperation between: Martin Luther University, Germany; Assiut University (Faculties of Science and Engineering), Egypt; Vrije Universiteit Brussel (Faculty of Applied Sciences, Department of Hydrology and Hydraulic Engineering), Belgium; REGWA Company, Egypt; and South Valley University, Faculty of Science, Egypt

2. The JE-HydroNet project on the Nile River System and the Delta of Egypt (GCOE-ARS)

The project is a part of GCOE-ARS Program representing in the collaboration between, Kyoto University, DPRI; Assiut University, Egypt; CoRI, NWRC, Egypt; and Alexandria University, Egypt. The main field of this project covers: 1- Flash flood and water resources management, 2- Climate change, 3- Surface and subsurface water hydrology, 4- Reservoir sedimentation and sediment management, 5- Dam impacts and Nile River Basin Ecosystem, 6- Coastal management. Also, field work and visits are one of the research feature of this project (2010, photo. 1).

Application: Flash floods forecasting

Flash floods not only in Egypt but also in many arid regions are the most devastating hazard nowadays (Photo.2). We are developing a physical-based hydrological model for flash floods forecasting (Hydro-BEAM-WaS, Fig.1). Fig. 2 is illustrating a distribution map of flash flood event of (Jan., 2010) by the model at wadi El-Arish, Sinai Peninsula, Egypt (Saber et al., 2010).



Photo 1: field trip Egypt, 2010



Photo 2: Flash flood, Egypt, 2010

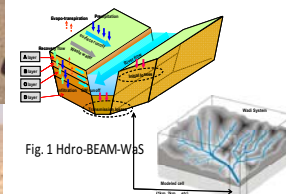


Fig. 1 Hydro-BEAM-WaS

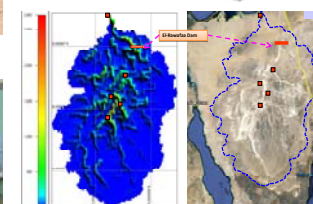


Fig. 2 Distribution maps of discharge of Jan. 2010 flash flood event at wadi El-Arish, Sinai Peninsula, Egypt.