Salwa Akl

بسم اللّه الرحمن الرحيم

مركز الشبكات وتكنولوجيا المعلومات

قسم التوثيق الإلكتروني

Salwa Akl

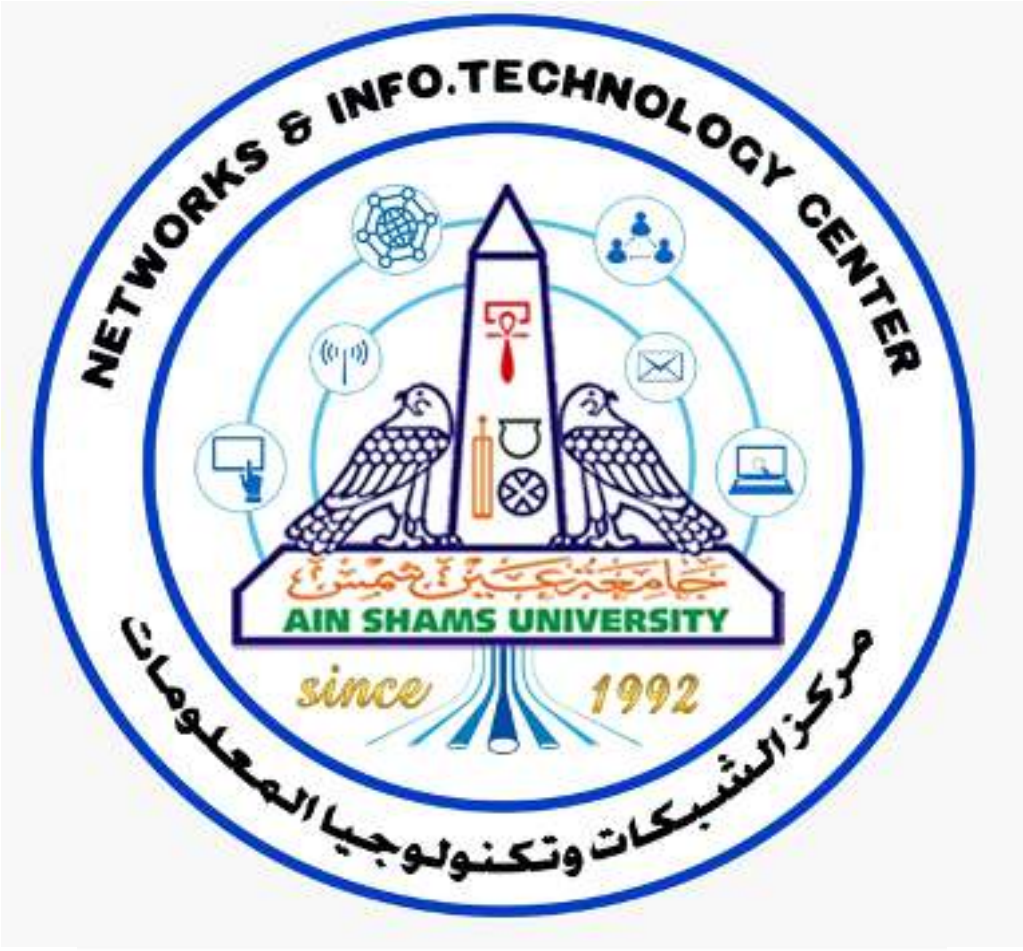
جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

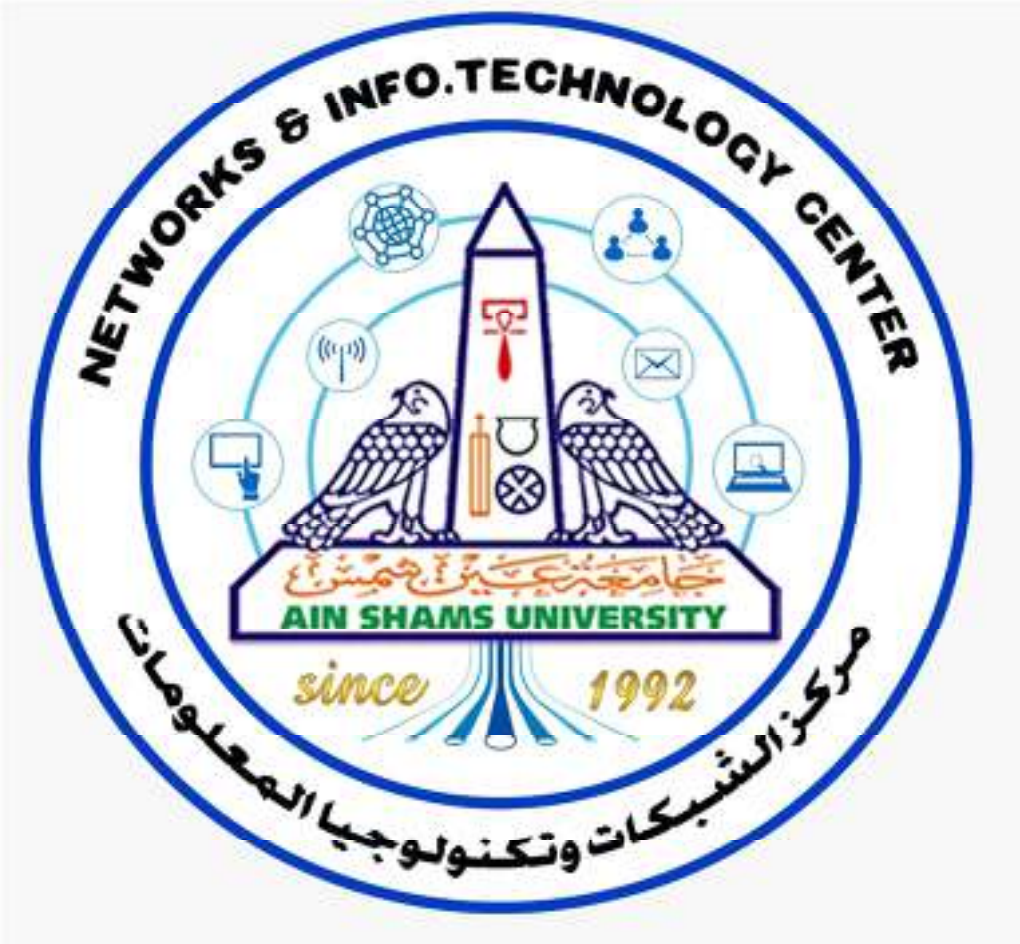
قسم

نقسم باللّه العظيم أن المادة التي تم توثيقها وتسجيلها

علي هذه الأقراص المدمجة قد أعدت دون أية تغيرات



Salwa Akl



بعض الوثائق الأصلية تالفة
وبالرسالة صفحات لم ترد بالأصل

Zoology Department
Faculty of Science
Ain Shams University

Effect of industrial and organic pollution on potential productivity and fish stock of Lake Mariut, Northern Egypt with a predictive study of that effect on the Lake.

BY

Abeer Abdul Rahman Koussa

A THESIS

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ABSTRACT

An ecological study was conducted in the Main Basin of Lake Mariut, during the period from May 1998- May 1999, to evaluate the present situation and investigate the pollution levels in the basin after operating the primary treatment plants in July 1993, as well as to assess the impact of this significant change in quality of drainage effluents on flora, fauna and fisheries of the Lake.

The results revealed that the quality of the drainage effluent discharging into Lake Mariut has been noticeably improved where the BOD level, which is an indicative parameter to the organic load, has been reduced by about 50% of the original concentration in the ETP and WTP effluents. However, BOD levels are still high enough to affect the environment of the northern part of the Main Basin, exhibiting elevated levels of wastewater-associated analytes such as ammonia, hydrogen sulphide, oxygen demand, and phosphorus.

The organo-tolerant blue-green algae have dominated the community composition of phytoplankton. Zooplankton community was dominated by the rotifer *Brachionus* genus, which is known as a pollution-tolerant. The benthic community was most depressed due to the very reactive sludge layer on the bottom of the Main Basin, which is unsuitable for most benthic organisms. Fishery was stressed by wastewater impacts, and under existing conditions approximately 40-60% of the Main Basin does not support a viable fishery. High-valued fish have disappeared and the organo-tolerant tilapian species are the dominant fish now besides the catfish *Clarias gariepinus*.

Some recommendations and suggestions were proposed at the end of this study to restore and revive this vital, important ecosystem; Lake Mariut.

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