Name: Hany Gad Elrab Elsayed Mohamed

Nationality: Egyptian.

Date& Place Of Birth: 10-4-1978 Sohag

**Degree**: (phd)

**Specialization**: Conservation of monuments

Supervisors: Prof. Dr. Gomaa Mohamed Abdel Maqsoud & . Ass. Prof.Dr.

Nagwa Tharwat & Dr. Aliaa Mohamed Atteya

**Title of thesis**: Experimental Study on Chemically Alternated Microbiological Deteriorated Leather Artifacts and Evaluation of Chosen Methods of Treatment with Application on Selected Examples.

## **Summary**:

The thesis had been divided into six chapters;

**Chapter One**: Previous Studies: This chapter considered as theoretical preface before starting the experimental study where handling the previous studies in the field of proteinaceous substances generally, and the leather artefacts especially

**Chapter Two**: Isolation and Identification Microorganisms from Old Leather Models: This chapter considers beginning of experimental study where dealing the isolation procedures and preparing growth media for fungi, bacteria and actinomycetes.

**Chapter Three**: qualitative and quantitative estimation of gelatin biodegradable as results to enzymes proteolytic activity by fungi and bacteria: The next step of the study based on determination the ability of fungi and bacteria species to denaturation of protein.

**Chapter four**: the effect of microbiological aging on properties of vegetable tanned leathers. Proceed microbiological aging for new leather samples using fungi, through growth fungi on media that not contain carbon source. Aging was processed on different periods from 15: 90 days.

**Chapter five**: Controlling and Prevention of Microbial Deterioration of Leather Artefacts: Study and evaluation materials and methods which used in controlling of microbial deterioration of old leather.

**Chapter six**: Applied Study: Includes practical partition carried out by the researcher to Restore and treat two models of historical bookbinding