



**EFFECT OF BIOFILM FILLING RATES, VARIOUS  
CYCLES DURATION AND ORGANIC LOADING RATES  
ON ORGANIC AND NUTRIENTS REMOVAL IN  
SEQUENCING BATCH BIOFILM REACTOR (SBBR)**

By  
**Ahmed Saeed Moustafa Elhawary**

A Thesis Submitted to  
Faculty of Engineering at Cairo University  
In partial fulfillment of the  
Requirements for the degree of  
**Master of Science**  
In  
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## **DISCLAIMER**

I hereby declare that this thesis is my own original work and that no part of it has been submitted for a degree qualification at any other university or institute.

I further declare that I have appropriately acknowledged all sources used and have cited them in the references section.

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## **ACKNOWLEDGEMENT**

It will be my pleasure to pick this opportunity for thanking so many people who have made this trip possible and helped me in every possible path in completion successfully of this work.

The first person I would like to thank is Assoc. Prof. Khaled Zaher did not only provide me the opportunity to complete the master research under his guidance, but also a flexibility and freedom to pursue the research. Professor Khaled is a helpful and supportive character by providing me a valuable ideas and thoughts throughout all stages of this work. This work would not have been possible without his help and efforts.

Then I would like to thank Assoc. Prof. Ehab Helmy who has provided a valuable inspiration and suggestions from the beginning of this research. I really appreciate his efforts and time in revising and corrections to the research.

Last, but not least, I would like to thank all my family members, especially my Father and my wife for their dedicated and unconditional support they provided me through this long trip. I would not have achieved this work without their help, support, and encouragement.



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