

**SULFIDE ELIMINATION BY USING AN AEROBIC SEQUENCING  
BATCH REACTOR.**

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**BACHELOR OF CHEMICAL ENGINEERING  
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BATCH REACTOR.**

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Thesis submitted in partial fulfilment of the requirements  
for the award of the degree of  
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## **SUPERVISOR'S DECLARATION**

We hereby declare that we have checked this thesis and in our opinion, this thesis is adequate in terms of scope and quality for the award of the degree of Bachelor of Chemical Engineering.

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### **STUDENT'S DECLARATION**

I hereby declare that the work in this thesis is my own except for quotations and summaries which have been duly acknowledged. The thesis has not been accepted for any degree and is not concurrently submitted for award of other degree

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## DEDICATION

*I dedicate this to my family and friends. Without their support and love, this work would not have been possible to be completed.*

## **ACKNOWLEDGEMENT**

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**LIST OF ABBREVIATIONS**

<i>BOD</i>	Biological Oxygen Demand
<i>COD</i>	Chemical Oxygen Demand
<i>CSTR</i>	Continous Stirred Tank Reactor
<i>EGSB</i>	Expended Granular Sludge Bed
<i>EQA</i>	Effluent Quality Act
<i>H<sub>2</sub>S</i>	Hydrogen Sulfide
<i>HS<sup>-</sup></i>	anionic Sulfide
<i>POME</i>	Palm Oil Mill Effluent
<i>pH</i>	Power Of Hydrogen
<i>S<sup>0</sup></i>	Sulfur
<i>S<sup>2-</sup></i>	Sulfide Ion
<i>SO<sub>3</sub><sup>-2</sup></i>	Thiosulfate
<i>SBR</i>	Sequencing Batch Reactor
<i>TSS</i>	Total Suspended Solid
<i>TVS</i>	Total Volatile Solid
<i>UASB</i>	Up-Flow Anaerobic Sludge Blanket Reactor
<i>VSS</i>	Volatile Suspended Solid
<i>WEF</i>	Water Environment Federation