



**SOKA IKEDA COLLEGE OF ARTS AND SCIENCE FOR WOMEN**

**DEPARTMENT OF BIO - CHEMISTRY [UG]**

**PROJECT**

**BATCH [2020 - 2023]**

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CHENNAI - 600 099**



**DEPARTMENT OF BIOCHEMISTRY**

**BATCH: 2020 -2023**

**CLASS: III BSC BIOCHEMISTRY**

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**EVALUATION OF ANTIBACTERIAL ACTIVITY OF *CATHARANTHUS ROSEUS***

**BY**

***IN-VITRO AND IN-SILICO ANALYSIS***

**DISSERTATION**

**Submitted to**

**UNIVERSITY OF MADRAS**

***In partial fulfillment for the Degree***

***of***

**BACHELOR OF SCIENCE**

***in***

**BIOCHEMISTRY**

**By**

**MS. KETANA U. S**

**Reg. No. 222008029**

**2020 – 2023**



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## BONAFIDE CERTIFICATE

This is to certify that the dissertation entitled "EVALUATION OF ANTIBACTERIAL ACTIVITY OF CATHARANTHUS ROSEUS BY IN-VITRO AND IN-SILICO ANALYSIS." Submitted to University of Madras in partial fulfillment of the requirements for the award of the Degree of Bachelor of Science in biochemistry , is a record of original research work by MS. U.S. KETANA during the period of her study in the Department of Bachelor of Science in Biochemistry, Soka Ikeda College of Arts and Science for Women, Chennai under my supervision. Certified further, that to the est of my knowledge the work reported here in does not form part of any other project report or dissertation on the basis of which a degree or award was conferred on an early occasion on this or any candidate.

PLACE: CHENNAI

DATE: 19/04/23

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17/4/23

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**SYNTHESIS OF VALUE ADDED BIO PRODUCT FROM FISH WASTE**

**DISSERTATION**

**Submitted to**

**UNIVERSITY OF MADRAS**

*In partial fulfillment for the Degree*

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**BACHELOR OF SCIENCE**

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*V. Anushe*  
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**ANTINOCICEPTIVE ACTIVITY OF  $\beta$ -SITOSTEROL ISOLATED FROM  
LEAVES OF MIRABILIS JALAPA: AN IN - SILICO STUDY**

**DISSERTATION**

**Submitted to**

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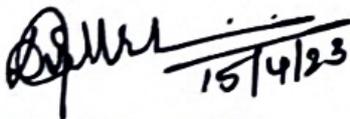
  
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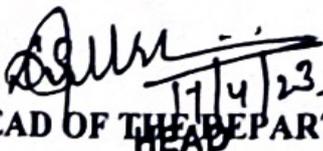
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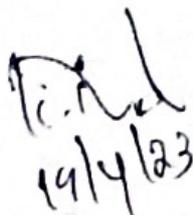
  
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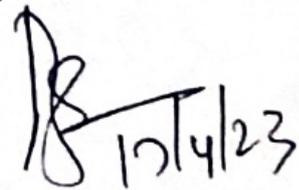
  
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**COMPARATIVE STUDY OF ANTIUROLITHIATIC PROPERTY OF  
ROOT AND AERIAL PART OF ASPARAGUS RACEMOSUS**

**DISSERTATION**

**Submitted to**

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**EVALUATION OF TOXICITY IMPACT OF CIGARETTE POLLUTION ON  
PHYSICOCHEMICAL CHARACTERISTIC OF WATER AND GROWTH OF FISH**

**DISSERTATION**

**Submitted to**

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This is to certify that the dissertation entitled "EVALUATION OF TOXICITY IMPACT OF CIGARETTE POLLUTION ON PHYSICO-CHEMICAL CHARACTERISTIC OF WATER AND GROWTH OF FISH "

Submitted to University of Madras in partial fulfillment of the requirements for the award of the Degree of Bachelor of Science in Biochemistry, is a record of original research work by MS. DEVISRI.M during the period of her study in the Department of Bachelor of Science in Biochemistry, Soka Ikeda College of Arts and Science for Women, Chennai under my supervision.

Certified further, that to the best of my knowledge the work reported here in does not form part of any other project report or dissertation on the basis of which a degree or award was conferred on an early occasion on this or any candidate.

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**ASSESSMENT OF OXIDATIVE STRESS AND ANTIOXIDANT RESPONSE OF GILLS OF  
NILE TILAPIA DURING CIGARETTE POLLUTION**

**DISSERTATION**

**Submitted to**

**UNIVERSITY OF MADRAS**

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**EVALUATION OF ANTIBACTERIAL ACTIVITY OF ACALYPHA INDICA BY IN-VITRO AND IN-SILICO ANALYSIS**

**DISSERTATION**

**Submitted to**

**UNIVERSITY OF MADRAS**

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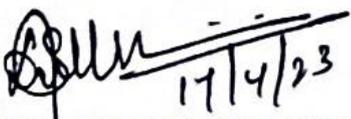
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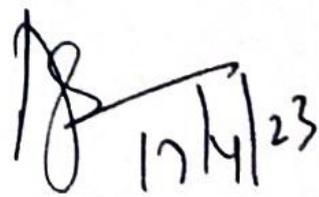
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**CHITOSAN EXTRACTION FROM INDIAN SHRIMP**

**SHELL WASTE**

**DISSERTATION**

**Submitted to**

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*In partial fulfillment for the Degree*

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*V. Sivakumar*  
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DATE: 19/4/2023

**GREEN SYNTHESIS OF SELENIUM NANOPARTICLES  
FROM MILLETTIA PINNATA AND IT'S  
ANTIMICROBIAL ACTIVITY**

**DISSERTATION**

**Submitted to**

**UNIVERSITY OF MADRAS**

*In partial fulfillment for the Degree*

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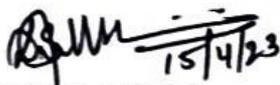
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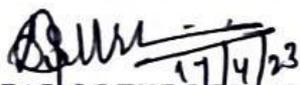


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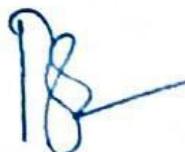
  
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DATE: 19.04.23

**GREEN SYNTHESIS OF SELENIUM NANOPARTICLES AND ITS  
CHARACTERIZATION FROM MILLETIA PINNATA**

**DISSERTATION**

**Submitted to**

**UNIVERSITY OF MADRAS**

*In partial fulfillment for the Degree*

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**BACHELOR OF SCIENCE**

*in*

**BIOCHEMISTRY**

**By**

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**2020 – 2023**



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V. R. Balakrishnan  
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**EVALUATION OF ANTIBACTERIAL ACTIVITY OF *PHYLLANTHUS NIRURI* BY  
*IN-VITRO* AND *IN-SILICO* ANALYSIS**

**DISSERTATION**

Submitted to

**UNIVERSITY OF MADRAS**

*In partial fulfillment for the Degree*

*of*

**BACHELOR OF SCIENCE**

*in*

**BIOCHEMISTRY**

By

**Ms. NISHAVARSHINI P**

Reg. No. 222008039

2020 – 2023



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## BONAFIDE CERTIFICATE

This is to certify that the dissertation entitled "EVALUATION OF ANTIBACTERIAL ACTIVITY OF PHYLLANTHUS NIRURI BY IN-VITRO AND IN-SILICO ANALYSIS." Submitted to University of Madras in partial fulfillment of the requirements for the award of the Degree of Bachelor of Science in Biochemistry, is a record of original research work by MS. NISHAVARSHINI. P during the period of her study in the Department of Bachelor of Science in Biochemistry, Soka Ikeda College of Arts and Science for Women, Chennai under my supervision. Certified further, that to the best of my knowledge the work reported here in does not form part of any other project report or dissertation on the basis of which a degree or award was conferred on an early occasion on this or any candidate.

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**MOLECULAR DOCKING STUDY AND PASS PREDICTION FOR  
ANTINOCICEPTIVE ACTIVITY OF  $\beta$ -SITOSTEROL ISOLATED FROM THE  
ROOTS OF MIRABILIS JALAPA LINN.**

**DISSERTATION**

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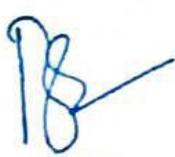
**In partial fulfilment for the Degree of  
BACHELOR OF SCIENCE IN BIOCHEMISTRY**

**By**

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This is to certify that the dissertation entitled "Molecular Docking Study and Pass Prediction for Antinociceptive Activity of  $\beta$ -Sitosterol Isolated from the Roots of *Mirabilis jalapa* Linn.", submitted to University of Madras in partial fulfilment of the requirements for the award of the degree of Bachelor of Science in Biochemistry, is a record of original research work by Ms.N Pavithra during the period of the study in the Department of Bachelor of Science in Biochemistry, Soka Ikeda College of Arts and Science for Women, Chennai, under my supervision. Certified further that, to the best of my knowledge the work reported here does not form part of any project report or dissertation on the basis of which a degree or award was conferred on an early occasion on this or any candidate.

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**COMPARATIVE EVALUATION OF ANTI-INFLAMMATORY  
ACTIVITY OF ASPARAGUS RACEMOSUS ROOT AND  
TRIBULUS TERRESTRIS FRUIT**

**DISSERTATION**

Submitted to

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**COMPARATIVE STUDY OF ANTIUROLITHIATIC ACTIVITY  
OF ASPARAGUS RACEMOSUS, INDIGOFERA TINCTORIA,  
TRIBULUS TERRESTRIS**

**DISSERTATION**

**Submitted to**

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**ANTIMICROBIAL PROPERTIES OF TRIBULUS TERRESTRIS AGAINST BACTERIAL  
STRAINS CAUSING FOOD SPOILAGE AND FOOD POISONING DISEASES**

**DISSERTATION**

**Submitted to**

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**FORMULATION AND EVALUATION OF DISINFECTANT ACTIVITY OF CISSUS**

**QUADRANGULARIS**

**DISSERTATION**

**Submitted to**

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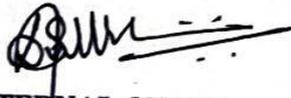


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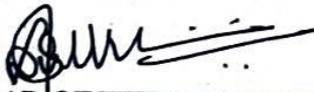
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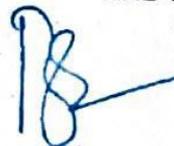
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**STUDY ON THE OXIDANT AND ANTI OXIDANT STATUS IN THE LIVER  
OF NILE TILAPIA EXPOSED TO CIGARETTE TOXICITY**

Submitted to

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*In partial fulfilment for the Degree*

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**HPTLC PROFILING AND ANTI-INFLAMMATORY ACTIVITY OF**

**FITTONIA ALBIVENIS**

**DISSERTATION**

**Submitted to**

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*In partial fulfillment for the Degree*

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**PRELIMINARY INVESTIGATION OF CIGARETTE – AQUA –TOXICITY ON THE  
PROXIMATE COMPOSITION OF NILE TILAPIA FISH MUSCLE**

**DISSERTATION**

**Submitted to**

**UNIVERSITY OF MADRAS**

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**PRELIMINARY PHYTOCHEMICAL SCREENING AND HPTLC**

**PHYTOCHEMICAL PROFILING OF ARIAL PART OF**

**ASPARAGUS RACEMOSUS**

**DISSERTATION**

**Submitted to**

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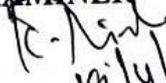
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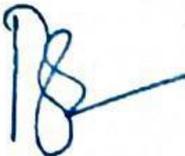
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**HISTOPATHOLOGY STUDY OF GILLS OF NILE TILAPIA REARED IN FISH TANK  
DISPERSED WITH CIGARETTES**

**DISSERTATION**

**Submitted to**

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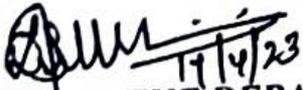
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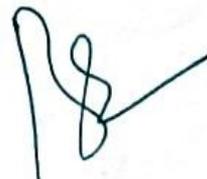
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**ECOTOXICOLOGY IMPACT OF CIGARETTE POLLUTION PROTOTYPE ON  
TISSUES DAMAGE MARKER ENZYME ACTIVITY OF NILE TILAPIA  
DISSERTATION**

**Submitted to**

**UNIVERSITY OF MADRAS**

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## BONAFIDE CERTIFICATE

This is to certify that the dissertation entitled " ECOTOXICOLOGY IMPACT OF CIGARETTE POLLUTION PROTOTYPE ON TISSUES DAMAGE MARKER ENZYME ACTIVITY OF NILE TILAPIA", Submitted to University of Madras in partial fulfillment of the requirements for the award of the Degree of Bachelor of Science in Biochemistry, is a record of original research work by MS.SNEHA.D during the period of her study in the Department of Bachelor of Science in Biochemistry, Soka Ikeda College of Arts and Science for Women, Chennai under my supervision. Certified further, that to the best of my knowledge the work reported here in does not form part of any other project report or dissertation on the basis of which a degree or award was conferred on an early occasion on this or any candidate.

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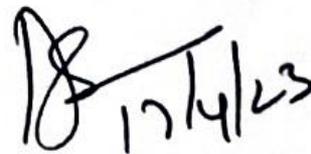
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**PHYTOCHEMICAL ANALYSIS AND ANTIMICROBIAL ACTIVITY OF  
FITTONIA ALBIVENIS**

**DISSERTATION**

**Submitted to**

**UNIVERSITY OF MADRAS**

*In partial fulfillment for the Degree*

*of*

**BACHELOR OF SCIENCE**

*in*

**BIOCHEMISTRY**

**By**

**Mrs. SOWNDARYA.L**

**Reg. No. 222008053**

**2020 – 2023**



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(DR. L. ANNA SHEBA)

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**MOLECULAR DOCKING STUDY OF ANTIMICROBIAL ACTIVITY OF AMYRIN  
ISOLATED FROM CISSUS QUADRANGULARIS**

**DISSERTATION**

**Submitted to**

**UNIVERSITY OF MADRAS**

*In partial fulfillment for the Degree*

*of*

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*in*

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This is to certify that the dissertation entitled "Molecular Docking Study of Antimicrobial Activity of Amyrin Isolated from *Cissus quadrangularis*", submitted to University of Madras in partial fulfilment of the requirements for the award of the degree of Bachelor of Science in Biochemistry, is a record of original research work by Ms.M.Suganthi during the period of the study in the Department of Bachelor of Science in Biochemistry, Soka Ikeda College of Arts and Science for Women, Chennai, under my supervision. Certified further that, to the best of my knowledge the work reported here does not form part of any project report or dissertation on the basis of which a degree or award was conferred on an early occasion on this or any candidate.

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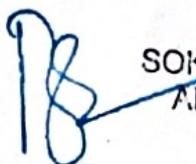
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**COMPARATIVE ANALYSIS TO EXPLORE THE ECOTOXICOLOGICAL EFFECT OF  
CIGARETTE ON TILAPIA 'S LIVER**

**DISSERTATION**

**Submitted to**

**UNIVERSITY OF MADRAS**

*In partial fulfillment for the Degree*

*of*

**BACHELOR OF SCIENCE**

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**PREPARATION OF HAND SANITIZER FROM SHRIMP SHELL WASTE  
DISSERTATION**

**Submitted to**

**UNIVERSITY OF MADRAS**

*In partial fulfillment for the Degree*

*of*

**BACHELOR OF SCIENCE**

*in*

**BIOCHEMISTRY**

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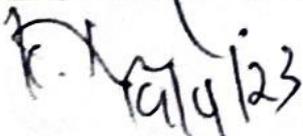
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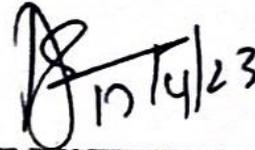
  
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