



# Holy Cross College (Autonomous) Nagercoil – 629 004

Affiliated to Manonmaniam Sundaranar University, Tirunelveli  
Nationally Accredited with A+ Grade (CGPA 3.35) by NAAC IV Cycle  
An ISO 9001:2015 Certified Institution

SSR  
2019-2020  
to  
2023-2024

## Project Report

### DEPARTMENT OF MATHEMATICS

#### A STUDY ON DOMINATING SETS

Project report submitted to the Holy Cross College (Autonomous),  
Nagercoil in partial fulfilment of the award of the Degree of  
BACHELOR OF SCIENCE IN MATHEMATICS

By

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Under the guidance of

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HOLY CROSS COLLEGE (AUTONOMOUS)

RE- ACCREDITED WITH A+ GRADE (CGPA 3.35) (IV CYCLE)

(AFFILIATED TO MANONMANIAM SUNDARANAR UNIVERSITY)

NAGERCOIL – 629 004

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We hereby declare that this project work entitled “A STUDY ON **DOMINATING SETS**” submitted by us for the Degree of **BACHELOR OF SCIENCE IN MATHEMATICS** is done under the guidance of Dr. V. Sujin Flower, Assistant Professor, Department of Mathematics (Aided), Holy Cross College (Autonomous) and it has not been submitted for the award of degree, diploma, associate ship or fellowship of any other University or Institution.

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## ACKNOWLEDGEMENT


First and foremost, we thank God Almighty for giving us the strength, knowledge, ability and opportunity to undertake this project and to persevere and complete it satisfactorily. Without His blessings, this project would not have been possible.

Next we thank our College Secretary Dr. Sr. Gerardin Jeyam, Principal Dr. Sr. Anne Perphet Sophy, Controller of Examinations Dr. J. Vinoliya Josephine Mary, and our Librarian Dr. Sr. Mary Johnsy for allowing us to utilize the facilities of the college for the project work and also for their well wishes.

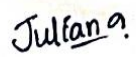
Our sincere thanks to our project guide Dr. V. Sujin Flower, Assistant Professor, Department of Mathematics, Holy Cross College (Autonomous), Nagercoil for the valuable suggestions, guidance and help rendered by her during the course of our work.

We are also thankful to the other faculty members of the Department of Mathematics (Aided) for their encouragement and help.

We owe our thanks to our dear parents and sisters and brothers for their timely help. Also, we thank our friends and well-wishers who helped us during the course of this project work.

  
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**A STUDY ON QUEUING THEORY AND  
ITS APPLICATIONS**

Project report submitted to Holy Cross College (Autonomous), Nagercoil in  
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**BACHELOR OF SCIENCE IN MATHEMATICS**

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**(RE-ACCREDITED WITH A+ GRADE (CGPA 3.35))**

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**NAGERCOIL – 629 004**

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We hereby declare that this project work entitled “A STUDY ON QUEUING THEORY AND ITS APPLICATIONS” submitted by us for the Degree of Bachelor of Science in Mathematics is done under the guidance of Dr. A. Jancy Vini, Assistant Professor, Department of Mathematics (Aided), Holy Cross College (Autonomous), and it has not been submitted for the award of degree, diploma, associateship or fellowship of any other University or Institution.

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## ACKNOWLEDGEMENT

First and foremost, we thank God Almighty for giving us the strength, knowledge, ability and opportunity to undertake this project and to persevere and complete it satisfactorily. Without his blessings, this project would not have been possible.

Next we thank our college Secretary **Dr. Sr. Gerardin Jayam**, Principal **Dr. Sr.S.Anne Perpet Sophy**, Controller of Examinations **Dr. J. Vinoliya Josephine Mary** and our Librarian **Dr. Sr. A. Mary Johnsy** for allowing us to utilize the facilities of the college for the project work and also for their well wishes.

Our sincere thanks to our project guide **Dr. A. Jancy Vini**, Assistant Professor of Mathematics, Holy Cross College (Autonomous), Nagercoil for the valuable suggestions, guidance and help rendered by her during the course of our work.

We are also thankful to the other faculty members of the Department of Mathematics (Aided) for their encouragement and help.

We owe our thanks to our dear parents and sisters for their timely help. Also we thank our friends and well wishers who helped us during the course of this project work.

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**FUZZY MATRIX**

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**BACHELOR OF SCIENCE IN MATHEMATICS**

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## DECLARATION

We hereby declare that the project work entitled “FUZZY MATRIX” submitted by us for the degree of **Bachelor of Science in Mathematics** is done under the guidance of Dr. L. Jesmalar, Assistant Professor of Department of Mathematics (Aided), Holy Cross College (Autonomous) and it has not been submitted for the award of degree, diploma, associateship or fellowship of any other university or Institution.

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## ACKNOWLEDGEMENT

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Without his blessings, this project would not have been possible.

Next we thank our college secretary Dr. Sr. Gerardin Jeyam, Principal Dr. Sr. Anne Perpet Sophy, Controller of Examination Dr. J. Vinoliya Josephine Mary, and our Librarian Dr. Sr. Mary Johnsy for allowing us to utilize the facilities of the college for the project work and also for their well wishes.

Our sincere thanks to our project guide Dr. L.Jesmalar, Assistant Professor of Department of Mathematics (Aided), Holy Cross College (Autonomous), Nagercoil for the valuable suggestions, guidance and help rendered by her during the course our work.

We are also thankful to the other faculties members of the Department of Mathematics (Aided) for their encouragement and help.

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**ANALYSIS OF EFFECTIVENESS OF VACCINATION USING  
STATISTICAL ANALYSIS AND FUZZY LOGIC**

Project report submitted to the PG and Research department of Mathematics, Holy Cross College (Autonomous), Nagercoil in partial fulfilment of the requirements for the award of the Degree of

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## ACKNOWLEDGEMENT

First and foremost, we thank God Almighty for giving us the strength, knowledge, ability and project to undertake this project and to persevere and complete it satisfactorily. Without His blessings, this project would not have been possible.

Next, we thank our College Secretary Dr. Sr. Gerardin Jayam, Principal Dr. Sr. S. Anne Perphet Sophy, Controller of Examination Dr. Josephine Vinoliya Mary and our Librarian Dr. Sr. A. Mary Johnsy for allowing us to utilize the facilities of the college for the project work and also for their well wishes.

Our sincere thanks to our project guide Dr. J. Befija Minnie, Assistant professor Mathematics, Holy Cross College (Autonomous), Nagercoil for the valuable suggestions, guidance and help rendered by her during the course of work.

We owe our thanks to our dear parents and sisters for their timely help. Also, we thank our friends and well-wishers who helped us during the course of this project work.



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**PROBABILITY DISTRIBUTIONS**

Project report submitted to the PG and Research department of Mathematics, Holy Cross College (Autonomous), Nagercoil in partial fulfilment of the requirements for the award of the Degree of

**BACHELOR OF SCIENCE IN MATHEMATICS**

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## DECLARATION

We hereby declare that this project work entitled submitted by us for the Degree of Bachelor of Science in Mathematics is done under the guidance of Mrs. J. C.MAHIZHA, Assistant professor, Department of Mathematics (Aided), Holy Cross College (Autonomous) and it has not been submitted for the award of degree, diploma, associate ship or fellowship of any other University or Institution.

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## ACKNOWLEDGEMENT

First and foremost, we thank God Almighty for giving us the strength, knowledge, ability and project to undertake this project and to persevere and complete it satisfactorily. Without His blessings, this project would not have been possible.

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Our sincere thanks to our project guide Mrs. J. C. Mahizha, Assistant professor Mathematics, Holy Cross College (Autonomous), Nagercoil for the valuable suggestions, guidance and help rendered by her during the course of work.

We owe our thanks to our dear parents and sisters for their timely help. Also we thank our friends and well-wishers who helped us during the course of this project work.

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## CONTENT

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**DEPARTMENT OF MATHEMATICS (SF)**

**A STUDY ON FUZZY LOGIC**

*Dissertation submitted to Holy Cross College (Autonomous) affiliated to Manonmaniam Sundaranar University in partial fulfilment of the requirement of the award of the degree of*

**BACHELOR OF SCIENCE IN MATHEMATICS**

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Also certified that this dissertation has not previously formed the basis for the award of any degree, diploma or any other similar title from the same university or any otherinstitution.

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**STUDY ON PRIME  $\Gamma$ -RADICALS IN  $\Gamma$ -SEMIGROUPS**

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**DECEMBER – 2021**

**Dr.C.JENILA, M.Sc., B.Ed., M.Phil., Ph.D.**

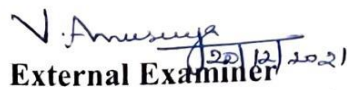
Assistant Professor,  
Department of Mathematics (Self Financed),  
Holy Cross College (Autonomous),  
Nagercoil - 629 004.

### CERTIFICATE


This is to certify that this project work entitled “**STUDY ON PRIME  $\Gamma$ -RADICALS IN  $\Gamma$ -SEMIGROUPS**” submitted by **ADSHALAL MISMA. R (2019050), AKSHAYA HARI. S.U (2019053), ARTHI. T (201958), JEYA SHERLI. J (2019074), SWEETLIN BLISCY. B (2019089)** of III. B.Sc. Mathematics (Self Financed) to Holy Cross College (Autonomous), Nagercoil, in partial fulfillment of the requirements for the award of the Degree of **BACHLEOR OF SCIENCE IN MATHEMATICS** is a bonafide record of the work done by them under my supervision and guidance.

Place: Nagercoil

Date: 15-12-2021

  
External Examiner

**Dr. V. Anusuya, Msc., M.Phil., Ph.D**  
Assistant Professor of Mathematics  
S.T. Hindu College, Nagercoil - 629 002,  
Kanyakumari District, Tamil Nadu

  
**Dr. C.JENILA, M.Sc., B.Ed., M.Phil., Ph.D.**

(Guide and Supervisor)

  
Head of the Department

Department of Mathematics (S.F)

**Department of Mathematics (S.F.)**  
**Holy Cross College (Autonomous)**  
Nagercoil - 629 004.



**A STUDY ON MODULAR ARITHMETIC**

*Dissertation submitted to*

**HOLY CROSS COLLEGE (AUTONOMOUS), NAGERCOIL**

*Affiliated to Manonmaniam Sundaranar University in partial fulfillment of the requirements for the award of the degree of*

**Bachelor of Science in Mathematics**

*Submitted by*

**A. I. AGISHA (Reg. No: 2019051)**

**J. ASHLI JASHIHA (Reg. No: 2019060)**

**M. ASLIN VINITHA (Reg. No: 2019061)**

**D. DENIHA (Reg. No: 2019065)**

**S. M. FAJEELA BURVEEN (Reg. No: 2019068)**

**R. NOBLE FEMINE (Reg. No: 2019079)**

*Under the guidance of*

**Mrs. J. ANNE MARY LEEMA, M.Sc., B.Ed., SET**

*(Asst. Professor and Head)*



**DEPARTMENT OF MATHEMATICS**

**HOLY CROSS COLLEGE (AUTONOMOUS)**

**NAGERCOIL – 629 004**

**DECEMBER - 2021**



**A STUDY ON SOFT SET THEORY**

Project submitted to Holy Cross College (Autonomous), Nagercoil in partial fulfillment of  
the requirements for the award of the Degree of

**BACHELOR OF SCIENCE IN MATHEMATICS**

By

**A. ARUL SASTHRA (Reg. No: 2019059)**

**D. BINISHIMA (Reg. No: 2019064)**

**J.R. EFI (Reg. No: 2019066)**

**S. HAZEENA BEEVI (Reg. No: 2019071)**

**J. JILSHA (Reg. No: 2019076)**

**S. SAHAYA SMITHA ARSIKA (Reg. No: 2019082)**

Under the guidance of

**Mrs. R.N. RAJALEKSHMI, M.Sc., B.Ed., M.Phil., SET.**

Assistant Professor of Mathematics



**DEPARTMENT OF MATHEMATICS (SELF-FINANCED)**

**HOLY CROSS COLLEGE (AUTONOMOUS)**

**ACCREDITED WITH A+ GRADE (CGPA - 3.35)**

**(AFFILIATED TO MANONMANIAM SUNDARANAR UNIVERSITY)**

**NAGERCOIL – 629 004.**

**DECEMBER – 2021**

DECLARATION

We hereby declare that this project work entitled "A STUDY ON SOFT SET THEORY" submitted by us for the Degree of Bachelor of Science in Mathematics is done under the guidance of Mrs. R.N. RAJALEKSHMI, M.Sc., B.Ed., M.Phil., SET, Assistant Professor, Department of Mathematics (Self-Financed), Holy Cross College (Autonomous), Nagercoil and it has not been submitted for the award of degree, diploma, associateship or fellowship of any other University or Institution.

Place: Nagercoil

Date: 15-12-2021

Arul Sasthra .A  
A. ARUL SASTHRA

J.R. EFI

J. JILSHA

D. BINOSHIMA

S. HAZEENA BEEVI

S. SAHAYA SMITHA ARSIKA  
S. SAHAYA SMITHA ARSIKA





# ROOT SQUARE MEAN LABELING OF GRAPHS

*Dissertation submitted to Holy Cross College (Autonomous) affiliated to  
Manonmaniam Sundaranar University in partial fulfillment of the  
requirements for the award of the Degree of*

## **Bachelor of Science in Mathematics**

Submitted by

<b>M. ANU SHALINI</b>	<b>(Reg.No:2019057)</b>
<b>A. S. ASWATHY</b>	<b>(Reg.No:2019062)</b>
<b>B.V. BARIT SAHAI DHANA</b>	<b>(Reg.No:2019063)</b>
<b>P. EVANGELIN STEPHANI</b>	<b>(Reg.No:2019067)</b>
<b>M. MICHEAL SANCIA</b>	<b>(Reg.No:2019078)</b>
<b>A. SELVA RISHIBA</b>	<b>(Reg.No:2019083)</b>

Under the guidance of

**Mrs. V. PRINCY KALA, M.Sc., M.Phil., SET.**



**DEPARTMENT OF MATHEMATICS (SELF FINANCED)**

**HOLY CROSS COLLEGE (AUTONOMOUS)**

**ACCREDITED WITH A<sup>+</sup> GRADE (CGPA 3.35) IV<sup>th</sup> CYCLE**

**(AFFILIATED TO MANONMANIAM SUNDARANAR UNIVERSITY)**

**NAGERCOIL -629004**

**DECEMBER -2021**



**Mrs. V. PRINCY KALA, M.Sc., M.Phil., SET.,**


Assistant Professor,

Department of Mathematics (Self Financed),

Holy Cross College (Autonomous), Nagercoil – 629 004.


### CERTIFICATE


This is to certify that this project work entitled “**ROOT SQUARE MEAN LABELING OF GRAPHS**” submitted by **Ms. M. ANU SHALINI (Reg.No:2019057), Ms. A. S. ASWATHY (Reg.No:2019062), Ms. B. V. BARIT SAHAI DHANA (Reg.No:2019063), Ms. P. EVANGELIN STEPHANI (Reg.No:2019067), Ms. M. MICHEAL SANCIA (Reg.No:2019078), Ms. A. SELVA RISHIBA (Reg. No:2019083)** of **III B. Sc. MATHEMATICS (Self Financed)** to the Holy Cross College (Autonomous), Nagercoil, in partial fulfilment of the requirements for the award of the Degree of **BACHELOR OF SCIENCE IN MATHEMATICS** is a bonafied record of the work done by them under my supervision and guidance.

  
**Mrs. V. PRINCY KALA**  
(Guide and Supervisor)

Place: Nagercoil

Date: 15/12/2021

  
**External Examiner** 20/12/2021  
**Dr. V. Anusuya, Msc., M.Phil., Ph.D**  
Assistant Professor of Mathematics  
S.T. Hindu College, Nagercoil - 629 002,  
Kanyakumari District, Tamil Nadu

  
**Head of the Department**  
**Department of Mathematics (S.F)**  
**Department of Mathematics (S.F.)**  
**Holy Cross College (Autonomous)**  
**Nagercoil - 629 004.**

## A STUDY ON MAGIC GRAPHS

Project report submitted to Holy Cross College (Autonomous), Nagercoil  
in partial fulfillment of the requirements  
for the award of the degree of

### BACHELOR OF SCIENCE IN MATHEMATICS

Submitted by

S. ABITHA	Register No: 2019049
C. AKSHA	Register No: 2019052
S. ANCY	Register No: 2019054
A. ANTON BALA AJITHA	Register No: 2019056
L. SAHAYA NISHA	Register No: 2019081
C. SHILY SHANICA	Register No: 2019085

Under the guidance of  
**Dr. S. KAVITHA, M.Sc., M.Phil., SET., Ph.D.**  
Assistant Professor of Mathematics



**DEPARTMENT OF MATHEMATICS (SELF – FINANCED)**  
**HOLY CROSS COLLEGE ( AUTONOMOUS )**  
**( RE – ACCREDITED WITH A+ GRADE ( CGPA 3.35 ) )**  
**( AFFILATED TO MANONMANIAM SUNDARANAR UNIVERSITY )**  
**NAGERCOIL – 629 004.**

**DECEMBER - 2021**



**A STUDY ON RANDOMIZED BLOCK DESIGN**

Project report submitted to Holy Cross College (Autonomous) Nagercoil.

In partial fulfillment of the requirements for the award of the degree of

**BACHELOR OF SCIENCE IN MATHEMATICS**

by

**M .Fathima Ancy -2019069**

**S .S. Shaloo -2019084**

**J. Ancy Mega -2019714**

**S. Subathra -2019088**

**G. Jenany -2019072**

Under the guidance of

**Mrs. C.JOSELIN JENISHA, M. Sc, B. Ed, M. Phil., SET**

Assistant professor of Mathematics



**DEPARTMENT OF MATHEMATICS (SELF – FINANCED)**

**HOLY CROSS COLLEGE (AUTONOMOUS)**

**RE-ACCREDITED WITH A+GRADE(CGPA 3.35)**

**(AFFILIATED TO MANONMANIAMSUNDARANAR UNIVERSITY)**

**NAGERCOIL-629 004**

**DECEMBER-2021**



Mrs. C. JOSELIN JENISHA, M. Sc, B.Ed, M.Phil, SET

Assistant Professor,

Department of Mathematics(Self-finance),

Holy Cross College(Autonomous),

Nagercoil -629004.

### CERTIFICATE

This is to certify that this project work entitled "A STUDY ON RANDOMIZED BLOCK DESIGN" submitted by Ms. M.FATHIMA ANCY(Reg.no 2019069), Ms. S.S. HALOOH(Reg.no 2019084), Ms. S. SUBATHRA(Reg.no 2019088), Ms. J.ANCY JEHA(Reg.no 2019714) Ms. G.JENANY(Reg.no 2019069) of III B. Sc mathematics(self-financed)to Holy Cross College(Autonomous), in partial fulfillment of the requirements for the award of the degree of **BACHELOR OF SCIENCE IN MATHEMATICS** is a bonafide record of the work done by them under my supervision and guidance.

Place :Nagercoil

  
Mrs. C. JOSELIN JENISHA, M.SC., B.Ed., M. Phil., SET

Date: 15/12/2021

(Guide and supervisor)

  
External Examiner

Dr. V. Anusuya, M.Sc., M.Phil., Ph.D  
Department of Mathematics  
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Kanniyakumari District, Tamil Nadu

  
Head of the Department

Department of Mathematics(S.F)

Department of Mathematics (S.F.)  
Holy Cross College (Autonomous)

Nagercoil - 629 004.

**DEPARTMENT OF PHYSICS**

**FABRICATION OF MUSSEL BASED  
COMPOSITES**

Skill Based Course – Project work submitted to  
Holy Cross college (Autonomous) in partial fulfillment of the  
requirements for the award of the Degree of  
Bachelor of Science in Physics

**Submitted by**

Miss. ABISHA. V	Reg.No: 2019093
Miss. MARY GRIFFIKA. G	Reg.No: 2019123
Miss. NAFLA NAZEER	Reg.No: 2019125
Miss. NITHILA MOL. A	RegNo: 2019128
Miss. PAYAL. A	RegNo: 2019129

*Under the guidance of*

**Dr. R. Krishna Priya, M.Sc., M.Phil., Ph.D**



**DEPARTMENT OF PHYSICS  
HOLY CROSS COLLEGE (AUTONOMOUS)  
NAGERCOIL-629 004  
MAY-2022**

## PREPARATION OF EPOXY COMPOSITES USING NATURAL WASTE MATERIALS

Skill Based Course-Project report submitted for the Fulfillment of the requirements for the award of the Degree of Bachelor of Science in Physics of Holy Cross College (Autonomous) affiliated to Manonmanium Sundaranar University.

### Submitted by

Miss. GEERTHIKA. V

Reg.no:2019107

Miss. JAFRIN ASHIMA. A

Reg.no:2019113

Miss. NISHA. R

Reg.no:2019126

Miss. TOSHMA EVANGELIN LIBERA

Reg.no:2019138

*Under the guidance of*

**Dr. M. Priya Dharshini, M.Sc., M.Phil., Ph.D.**



DEPARTMENT OF PHYSICS  
HOLY CROSS COLLEGE (AUTONOMOUS)  
NAGERCOIL - 629 004  
MAY-2022

# **REFRACTIVE INDEX OF DIFFERENT LIQUIDS USING HOLLOW PRISM**

Dissertation submitted to Holy cross college (Autonomous), Nagercoil in partial  
fulfilment of the requirement for the award of the degree of

## **BACHELOR OF SCIENCE IN PHYSICS**

Project team

<b>Name</b>	<b>Reg.No</b>
C. Anslin Jhony	2019100
J. Arockia Arthi	2019101
R. Fathima Nasecha	2019105
J.L. Jenifa	2019116

Under the Guidance of

**Ms. S. Virgin Jeba, M.Sc., B.Ed., M.Phil., SET, (Ph.D)**



**DEPARTMENT OF PHYSICS & RESEARCH CENTER**

**HOLY CROSS COLLEGE (AUTONOMOUS),**

**NAGERCOIL-629004**

**2021-2022**



**SUPER HYDROPHOBIC ACTIVITY OBSERVED IN  
NATURE AND HOW IT CAN BE UTILIZED IN  
SCIENTIFIC AND INDUSTRIAL FIELD**

Submitted to Manomaniam Sundaranar University in partial fulfilment of the requirements for the award of Degree of Bachelor of Science in Physics.

**Under the guidance of**

**Mrs. S. Sonia M.Sc., Ph.D.**

*Submitted by*

<b>R.S.Dharshini</b>	<b>2019103</b>
<b>Y.Julit</b>	<b>2019119</b>
<b>M.S.Mallika</b>	<b>2019122</b>
<b>J.Mridula pearly</b>	<b>2019124</b>



**DEPARTMENT OF PHYSICS  
HOLY CROSS COLLEGE (AUTONOMOUS)**

**NAGERCOIL-629004**

**2021-2022**

## DIELECTRIC CONSTANT OF AMINO ACIDS

*Skill Based Course – Project report submitted for the fulfillment of the requirements for the award of the Degree of Bachelor of Science in Physics of Holy Cross College (Autonomous) affiliated to Manonmaniam Sundaranar University*

### Submitted by

Name	Register Number
Ancy Jose G.S	2019098
Arockiya Ashely S	2019102
Fathima Arshi A	2019104
Jenisha R	2019117

### Under the guidance of

Dr. M. Abila Jeba Queen, M.Sc., M. Phil., SET., Ph.D.



DEPARTMENT OF PHYSICS  
HOLY CROSS COLLEGE (AUTONOMOUS)

NAGERCOIL-629004

MAY-2022

# **SOLAR FAN**

## **SKILL BASED COURSE PROJECT**

Submitted to holy cross college (Autonomous), Nagercoil affiliated to Manonmaniam Sundaranar University in the partial fulfilment of the requirement for the award of the degree of in partial

## **BACHELOR OF SCIENCE IN PHYSICS**

*Project team*

<b>R.ANCY</b>	<b>2019097</b>
<b>M.HERIN</b>	<b>2019110</b>
<b>P.JAMUNA PREETHI</b>	<b>2019114</b>
<b>V.LUTHISHMA</b>	<b>2019121</b>

Under the guidance of

**Ms. P. AJI UDHAYA, M.Sc., M.Phil., SET, (Ph.D)**



**DEPARTMENT OF PHYSICS AND RESEARCH CENTER  
HOLY CROSS COLLEGE (AUTONOMOUS),  
NAGERCOIL-629004  
2021-2022**

# ELECTRICAL WIRES THICKNESS

*Skill based course-project work submitted to Holy Cross College  
(Autonomous), in fulfilment of the requirements for the award of the  
Degree of Bachelor of Science in physics*

## Project Team

NAME	REG.NO
M.GOWRI	2019108
J. JELINA JEDLY	2019115
S.PRIYA	2019130
S.M.SHANIYA	2019136

Under the guidance of  
Dr.C.Nirmala Louis, M.Sc., Ph.D, PGDCA.



Department of Physics  
Holy Cross College (Autonomous)  
Nagercoil - 629004  
April - 2022

**WEATHER MONITORING SYSTEM USING BLYNK  
APPLICATION**

Skill Based Course – Project work submitted to  
Holy Cross college (Autonomous) in partial fulfillment of the  
Requirements for the award of the Degree of  
Bachelor of Science in Physics

**Submitted by**

Miss.M. ABISHA

Reg.No: 2019092

Miss.J. AJI ALAN FEMI

Reg.No: 2019094

Miss.HELENA. F. IGNATIUS

Reg.No: 2019109

Miss.C. SAJANI

Reg.No: 2019134

*Under the guidance of*

Dr. A. Lesly Fathima, M.Sc., M.Phil., Ph.D



DEPARTMENT OF PHYSICS  
HOLY CROSS COLLEGE (AUTONOMOUS)  
NAGERCOIL-629 004

# SOLAR CAR WITH WIRELESS CHARGING STATION

SBC PROJECT REPORT

*Submitted to Manonmaniam Sundaranar University in partial fulfilment of the requirements for the  
award of degree of Bachelor of Science in physics*

Submitted by

FINIBHA JEBAL, J. S	2019106
JOSPHINE SARANYA, A	2019118
LESHA HEBONL J	2019120
NISHITHA, C	2019127

Under the guidance of

Dr. Mrs. V. SHALLY, M.Sc., M.phil., Ph.D



HOLY CROSS COLLEGE (AUTONOMOUS)  
DEPARTMENT OF PHYSICS  
NAGERCOIL

**DEPARTMENT OF CHEMISTRY**

**COMPARISON OF THE SALT QUALITY PARAMETERS OF SELECT  
REFINED AND PINK SALT SAMPLES**

*Project report submitted to Holy Cross College (Autonomous), Nagercoil affiliated  
to Manonmaniam Sundaranar University in partial fulfilment of the requirements  
for the award of the degree of*

**BACHELOR OF SCIENCE IN CHEMISTRY**

By

<b>Name of the student</b>	<b>Register Number</b>
<b>G. Abiga</b>	<b>2019139</b>
<b>A. Abisha</b>	<b>2019140</b>
<b>S. Ancy</b>	<b>2019141</b>
<b>S. Anni Rajisha</b>	<b>2019142</b>
<b>M. Anto Snowfita</b>	<b>2019143</b>
<b>M. Antony Rashmin</b>	<b>2019144</b>
<b>S.J. Antony Sneka</b>	<b>2019145</b>

*Under the Guidance of*  
**Dr. G. Leema Rose**



**PG & RESEARCH DEPARTMENT OF CHEMISTRY  
HOLY CROSS COLLEGE (AUTONOMOUS)**

[RE-ACCREDITED WITH A+ GRADE (CGPA 3.35)]

**NAGERCOIL – 629 004**

**APRIL - 2022**

Dr. G. Leema Rose,  
Associate Professor and Head  
PG & Research Department of Chemistry,  
Holy Cross College (Autonomous),  
Nagercoil - 629 004.

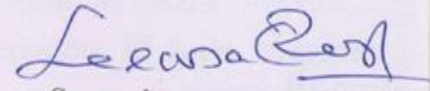
### CERTIFICATE

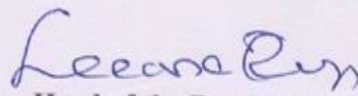
This is to certify that this project work entitled **COMPARISON OF THE SALT QUALITY PARAMETERS OF THE SELECT REFINED AND PINK SALT SAMPLES** submitted by G. Abiga, A. Abisha, S. Ancy, S. Anni Rajisha, W. Anto Snowfita, M. Antony Rashmin, S.J. Antony Sneka of III B.Sc. Chemistry, Holy Cross College (Autonomous) in partial fulfillment of the requirements for the award of the Degree of Bachelor of Science in Chemistry is a bonafide record of the work done by them under my supervision and guidance.

Place: Nagercoil

Date:

  
Examiner

  
Supervisor

  
Head of the Department





ACKNOWLEDGEMENT  
**DECLARATION**

We hereby declare that the project work entitled **COMPARISON OF THE SALT PARAMETERS OF SELECT REFINED AND PINK SALT SAMPLES** submitted by us for the degree of Bachelor of Science in Chemistry done under the guidance of **Dr. G. Leema Rose., M.Sc., B.Ed., M.Phil., Ph.D.,** Associate Professor and Head, Department of Chemistry, Holy Cross College (Autonomous) was done by us and it has not been submitted for the award of any other degree, diploma, associate-ship or fellowship of any other University or Institution.

Place: Nagercoil

Date:

G. Abiga G. Abiga  
A. Abisha A. Abisha  
S. Ancy S. Ancy  
S. Anni Rajisha S. Anni Rajisha  
M. Anto Snowfita M. Anto Snowfita  
M. Antony Rashmin M. Antony Rashmin  
S. J. Antony Sneka S. J. Antony Sneka



**FACILE SYNTHESIS, CHARACTERIZATION AND ANTIBACTERIAL  
ACTIVITY OF SILVER NANOPARTICLES USING PLANT  
EXTRACTS**

*Project report submitted to Holy Cross College (Autonomous), Nagercoil affiliated  
to Manonmaniam Sundaranar University in partial fulfilment of the requirements  
for the award of the degree of*  
**BACHELOR OF SCIENCE IN CHEMISTRY**

By

<b>Name of the student</b>	<b>Register Number</b>
Anusha M	2019146
Arul Manju A	2019147
Ashwini S	2019148
Asia Najeema S	2019149
Aswitha R P	2019150
Aswitha T	2019151
Babitha S	2019152

*Under the Guidance of*  
**Dr. M. Anitha Malbi**



**PG & RESEARCH DEPARTMENT OF CHEMISTRY**

**HOLY CROSS COLLEGE (AUTONOMOUS)**

[RE-ACCREDITED WITH A\* GRADE (CGPA 3.35)]

**NAGERCOIL – 629 004**

**MARCH-2022**

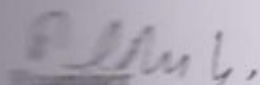
Dr. M. Anitha Malbi,  
Assistant Professor,  
R&D Research Department of Chemistry,  
Holy Cross College (Autonomous),  
Nagercoil - 629 004.

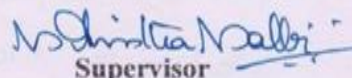
### CERTIFICATE

This is to certify that this project work entitled **FACILE SYNTHESIS, CHARACTERIZATION AND ANTIBACTERIAL ACTIVITY OF SILVER NANOPARTICLES USING PLANT EXTRACTS** submitted by Anusha M, Arul Mani A, Ashwini S, Asia Najeema S, Aswitha R P, Aswitha T, Babitha S of B.Sc. Chemistry, Holy Cross College (Autonomous) in partial fulfillment of the requirements for the award of the Degree of Bachelor of Science in Chemistry is a commendable record of the work done by them under my supervision and guidance.

Place: Nagercoil

Date: 30/3/2022



  
Supervisor

Head of the Department



## DECLARATION

We hereby declare that the project work entitled **FACILE SYNTHESIS, CHARACTERIZATION AND ANTIBACTERIAL ACTIVITY OF SILVER NANOPARTICLES USING PLANT EXTRACTS** submitted by us for the degree of Bachelor of Science in Chemistry done under the guidance of **Dr. M. Anitha** **M.Sc., M.Phil., Ph.D.**, Associate Professor and Head, Department of Chemistry, Holy Cross College (Autonomous) was done by us and it has not been submitted for the award of any other degree, diploma, associate-ship or fellowship of any other University or Institution.

Place: Nagercoil

Date: 30/3/2022

Anusha M M. Anusha  
Arul Manju A Arul Manju . A  
Ashwini S S. Ashwini  
Asia Najeema S S. Asia Najeema  
Aswitha R P R. P. Aswitha .  
Aswitha T T. Aswitha  
Babitha S S. Babitha

# PHYSICO-CHEMICAL CHARACTERISTICS OF SOME SELECTED NATURAL INDICATORS

*Project report submitted to Holy Cross College (Autonomous), Nagercoil  
affiliated to Manonmaniam Sundaranar University in Partial fulfilment of  
the requirements for the award of the Degree of*

**BACHELOR OF SCIENCE IN CHEMISTRY**

**SUBMITTED BY**

<b>NAME OF THE STUDENT</b>	<b>REG. NO.</b>
S.J. BHUVANESHWARI	2019153
J.S. BLESSY	2019154
K.M. DEEPIKA	2019155
M. FARHANA	2019156
H. FELCIA	2019157
J. GINCY PRIYA	2019158
R. HENSHA RIYANA	2019160

Under the guidance of

**Dr. R. GLADIS LATHA**



**P.G & Research Department of Chemistry**

**Holy Cross College (Autonomous)**

[Reaccredited with A<sup>+</sup> Grade (CGPA 3.35)]

**Nagercoil-629004**

**March 2022**

Dr. R. Gladis Latha,  
Assistant Professor,  
PG and Research Department of Chemistry,  
Holy Cross College (Autonomous),  
Nagercoil.

DECLARATION

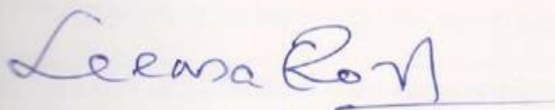
I hereby declare that the project work entitled "PHYSICO-CHEMICAL CHARACTERISTICS OF SOME SELECTED NATURAL INDICATORS" submitted by S.J. BHUVANESHWARI, J.S. BLESSY, K.M. DEEPIKA, M. FARHANA, H. FELCIA, J. GINCY PRIYA and R. HENSHA RIYANA of III. B.Sc. Chemistry, Holy Cross College (Autonomous) in partial fulfilment of the requirements for the award of the Degree of Bachelor of Science in Chemistry is a bonafide record of the work done by them under my supervision and guidance.

CERTIFICATE

This is to certify that the project entitled "PHYSICO-CHEMICAL CHARACTERISTICS OF SOME SELECTED NATURAL INDICATORS" submitted by S.J. BHUVANESHWARI, J.S. BLESSY, K.M. DEEPIKA, M. FARHANA, H. FELCIA, J. GINCY PRIYA and R. HENSHA RIYANA of III. B.Sc. Chemistry, Holy Cross College (Autonomous) in partial fulfilment of the requirements for the award of the Degree of Bachelor of Science in Chemistry is a bonafide record of the work done by them under my supervision and guidance.

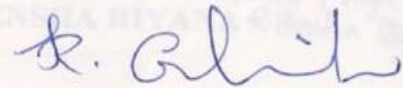
Place: Nagercoil

Date: 10/12/22



Head of the Department,  
Dr. G. Leema Rose

S.J. BHUVANESHWARI  
J.S. BLESSY  
K.M. DEEPIKA  
M. FARHANA  
H. FELCIA  
J. GINCY PRIYA  
R. HENSHA RIYANA



Supervisor,  
Dr. R. Gladis Latha

Am h



## ACKNOWLEDGEMENT

We hereby declare that the project work entitled “**PHYSICO-CHEMICAL CHARACTERISTICS OF SOME SELECTED NATURAL INDICATORS**” submitted by us for the degree of Bachelor of Science in Chemistry done under the guidance of Dr. R. Gladis Latha., M.Sc., B.Ed., M.Phil., Ph.D., Assistant Professor, Department of Chemistry, Holy Cross College (Autonomous) was entirely carried out by us and it has not been submitted for the award of any other degree, diploma, associate-ship or fellowship of any other University or Institution.

Place: Nagercoil

Date: 26-03-2022

S.J. BHUVENESHWARI *S.J. Bhuvaneshwari*  
J.S. BLESSY *J.S. Blessy*  
K. M. DEEPIKA *K.M. Deepika*  
M. FARHANA *Farhana M*  
H. FELCIA *Felcia H*  
J. GINCY PRIYA *J. Gincy Priya*  
R. HENSHA RIYANA *R. Hensha Riyana*



**PHYSICO-CHEMICAL ANALYSIS OF SELECTED WATER SAMPLES  
IN AND AROUND KANYAKUMARI DISTRICT**

*Project work submitted to Holy Cross College (Autonomous) affiliated  
to Manonmaniam Sundaranar University in partial fulfilment of  
the requirement of the award of the degree of*

**BACHELOR OF CHEMISTRY**

By

NAME OF THE STUDENT	REGISTER NUMBER
J. JANISHA FLAVY FLORINA	2019161
S. JEEVA ARTHY	2019162
G.V. JENIKA	2019163
J. JENY SARMI	2019164
M. JOLINNILOFA	2019165
M. KASTHURI	2019166

*Under the Guidance of*

*K. Francy*



**PG & RESEARCH DEPARTMENT OF CHEMISTRY**

**HOLY CROSS COLLEGE (AUTONOMOUS)**

[RE-ACCREDITED WITH A\* GRADE (CGPA 3.35)]

**NAGERCOIL – 629 004**

**MARCH 2022**



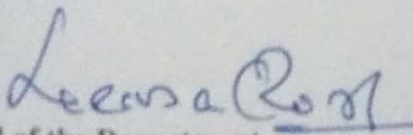
K. Francy,  
Assistant Professor,  
PG & Research Department of Chemistry,  
Holy Cross College (Autonomous),  
Nagercoil - 629 004.


### CERTIFICATE

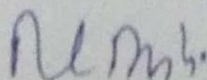
This is to certify that the project entitled "PHYSICO CHEMICAL ANALYSIS OF SELECTED WATER SAMPLES IN AND AROUND KANYAKUMARI DISTRICT" submitted by J. Janisha Flavy Florina, S. JeevaArthy, G.V. Jenika, J. JenySarmi, M. Jolinnilofa, M. Kasthuri of III. B.Sc. Chemistry, Holy Cross College (Autonomous) in partial fulfilment of the requirements for the award of the Degree of Bachelor of Science in Chemistry is a bonafide record of the work done by them under my supervision and guidance.

Place: Nagercoil

Date:

  
Head of the Department,  
Dr. G. Leema Rose.

  
Supervisor,  
K. Francy.



### DECLARATION

We hereby declare that the project work entitled “**PHYSICO CHEMICAL ANALYSIS OF SELECTED WATER SAMPLES IN AND AROUND KANYAKUMARI DISTRICT**” submitted by us for the degree of Bachelor of Science in Chemistry done under the guidance of K. Francy, Assistant Professor, Department of Chemistry, Holy Cross College (Autonomous) was done by us and it has not been submitted for the award of any other degree, diploma, associateship or fellowship of any other University or Institution.

Place: Nagercoil

Date: 26-03-2022

J. Janisha Flavy Florina *J. Janisha Flavy*

S. JeevaArthy *S. Jeeva Arthy.*

G.V. Jenika *G.V. Jenika.*

J. JenySarmi *J. Jeny Sarmi.*

M. Jolinnilofa *M. Jolinnilofa.*

M. Kasthuri *M. Kasthuri*

# Green Route for Efficient Synthesis of Novel Amino Acid Schiff Base Metal Complexes as Potent Antimicrobial agents

*Project report submitted to Holy Cross College (Autonomous), Nagercoil affiliated to Manonmaniam Sundaranar University in Partial fulfillment of the requirements for the award of the Degree of*

**BACHELOR OF SCIENCE IN CHEMISTRY**

**BY**

<b>Name of the Student</b>	<b>Reg.No</b>
N. KEERTHIKA	2019167
LEENA SAJU	2019168
M. LISHA MALAR	2019169
K. MALATHI	2019170
R. MONISHA	2019171
K. MONISHKA	2019172

Under the guidance of

**Dr. S. AJITH SINTHUJA**



P.G & Research Department of Chemistry  
Holy Cross College (Autonomous)  
[Reaccredited with 'A+' Grade CGPA 3.350]  
Nagercoil 629004  
March-2022

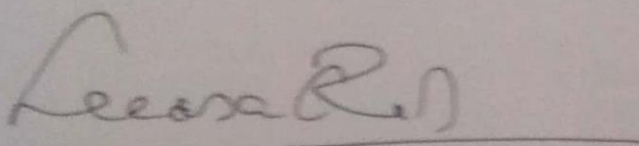
Dr. S. Ajith Sinthuja,  
Assistant Professor,  
PG and Research Department of Chemistry,  
Holy Cross College (Autonomous),  
Nagercoil.

CERTIFICATE

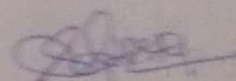
This is to certify that the project entitled "Green Route for Efficient Synthesis of Novel Amino Acid Schiff Base Metal Complexes as Potent Antimicrobial agents" submitted by N. Keerthika, Leena Saju, M. Lisha Malar, K. Malathi, R. Monisha and K. Monishka of III. B.Sc. Chemistry, Holy Cross College (Autonomous) in partial fulfillment of the requirements for the award of the Degree of Bachelor of Science in Chemistry is a bonafide record of the work done by them under my supervision and guidance.

Place: Nagercoil

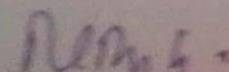
Date: 16-05-2022



Head of the department,  
Dr. G. Leema Rose



Supervisor,  
Dr. S. Ajith Sinthuja

  
Examiner

## DECLARATION

We hereby declare that the project work entitled "Green Route for Efficient Synthesis of Novel Amino Acid Schiff Base Metal Complexes as Potent Antimicrobial agents" submitted by us for the degree of Bachelor of Science in Chemistry done under the guidance of Dr. S. Ajith Sinthuja., M.Sc., B.Ed., M.Phil., Ph.D., Assistant Professor, Department of Chemistry, Holy Cross College (Autonomous) was entirely carried out by us and it has not been submitted for the award of any other degree, diploma, associate-ship or fellowship of any other University or Institution.

PLACE: Nagercoil  
DATE: 16-08-2022

N. KEERTHIKA *Keerthika*  
LEENA SAJU *Leena Saj*  
M. LISHA MALAR *M. Lisha Malas*  
K. MALATHI *K. Malathi*  
R. MONISHA *R. Monisha*  
K. MONISHKA *K. Monishka*

**DEPARTMENT OF BOTANY**

**IMPACT OF PESTICIDES ON SEED GERMINATION AND  
EARLY SEEDLING GROWTH OF LADY'S FINGER  
(ABELMOSCHUS ESCULENTUS (L.)) AND CLUSTER BEANS  
(CYAMOPSIS TETRAGONOLOBA (L.) TAUB.)**

*Project work submitted to Manonmaniam Sundaranar University, Tirunelveli in partial  
fulfillment of the requirements for the award of the degree of*

**BACHELOR OF SCIENCE**

By

<b>V. Sneha</b>	<b>190183</b>
<b>R. Vinisha</b>	<b>190185</b>
<b>V. Vinoba</b>	<b>190186</b>
<b>A. Stapanay Janusha</b>	<b>190442</b>
<b>M. R. Nasrin Shinu</b>	<b>190174</b>

Under the Guidance of

**Dr. C. Jespin Ida**

(Associate Professor, Department of Botany)



**DEPARTMENT OF BOTANY**  
**HOLY CROSS COLLEGE (AUTONOMOUS)**  
**NAGERCOIL – 629 004**  
**MAY 2022**

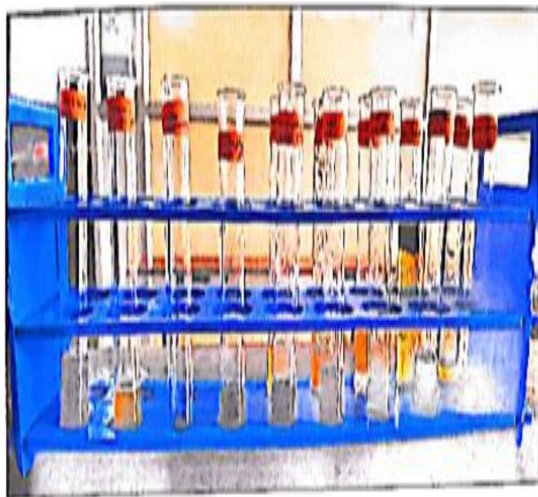


**Plate-3** Seeds of *Cyamopsis tetragonoloba* (L.) Taub. germinated at different concentrations of fenvalerate after 10 days.



**Plate-4** Seeds of *Cyamopsis tetragonoloba* (L.) Taub. germinated at different concentrations of chloropyriphos after 10 days

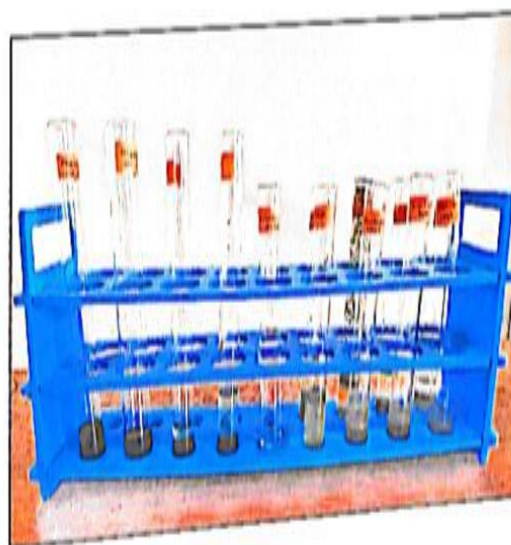




**Aqueous Plant Extract**



**Ethanol Plant Extract**



**Chloroform Plant Extract**

**Plate 4.3 Phytochemical screening of *Azadirachta indica* using Aqueous, Ethanol and Chloroform extracts**





**DEPARTMENT OF ZOOLOGY**

**WATER QUALITY ASSESSMENT AND BIODIVERSITY  
STUDIES OF AN URBAN POND IN KANYAKUMARI  
DISTRICT**

*Project report submitted to Holy Cross College (Autonomous), Nagercoil,  
affiliated to Manonmaniam Sundaranar University, Tirunelveli in partial  
fulfilment of the requirements for the award of the Degree of*

**BACHELOR OF SCIENCE  
IN  
ZOOLOGY**

Submitted By

D. ADLIN	- 2019227
A.R. AL-AKSHA	- 2019230
S. JEGANYA	- 2016214
P. KALAIPRIYA	- 2013244
S. PRATHISHA	- 2019252
T.R.K. PRIYA DHARSHINI	- 2019254



**DEPARTMENT OF ZOOLOGY  
HOLY CROSS COLLEGE (AUTONOMOUS)  
NAGERCOIL  
MAY-2022**

BONAFIDE CERTIFICATE

This is to certify that the project entitled "WATER QUALITY ASSESSMENT AND BIODIVERSITY STUDIES OF AN URBAN POND IN KANYAKUMARI DISTRICT" is a bonafide record of work done by Ms. D. Adlin, Ms. A.R. Al-Aksha, S. Jeganya, P. Kalaipriya, S. Prathisha and T.R.K. Priya Dharshini under the guidance and supervision of Dr. Jeni Chandar Padua, during their tenure towards the partial fulfilment of their requirement for the degree of Bachelor of Science in Zoology at Holy Cross College (Autonomous), Nagercoil, affiliated to Manonmaniam Sundaranar University, Tirunelveli.



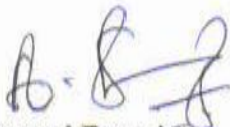
Supervisor



Head of the Department

Dr. F. BRISCA RENUGA  
HOD - Department of Zoology  
Holy Cross College  
Nagercoil - 629 004

Submitted for Viva Voce Examination held on 23.05.2022



External Examiner

**STUDY ON THE EFFECT OF DIFFERENT PHYSICOCHEMICAL FACTORS  
ON AQUATIC ENVIRONMENT**

*Project report submitted to Holy Cross College (Autonomous), Nagercoil, affiliated to  
Manonmaniam Sundaranar University, Tirunelveli in partial fulfillment of the  
requirements for the award of the degree of*

**BACHELOR OF SCIENCE  
IN  
ZOOLOGY**

*By*

<b>Agnel J</b>	<b>-</b>	<b>Reg. No. 2019228</b>
<b>Azeena Beevi R</b>	<b>-</b>	<b>Reg. No. 2019238</b>
<b>Bhahima Muruzitha S</b>	<b>-</b>	<b>Reg. No. 2019239</b>
<b>Gnana Sounthari Reshma E</b>	<b>-</b>	<b>Reg. No. 2019245</b>
<b>Sona S.M</b>	<b>-</b>	<b>Reg. No. 2019265</b>



**DEPARTMENT OF ZOOLOGY  
HOLY CROSS COLLEGE (AUTONOMOUS)**

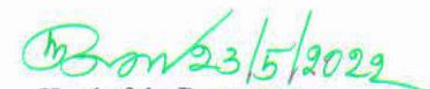
**NAGERCIOLO - 629 004**

**MAY - 2022**

**BONAFIDE CERTIFICATE**

This is to certify that the dissertation entitled “**Study on the effect of different physicochemical factors on aquatic environment**” submitted by Agnel J (Reg. No. 2019228), Azeena Beevi R (Reg. No. 2019238), Bhahima Muruzitha S (Reg. No. 2019239), Gnana Sounthari Reshma, E, (Reg. No. 2019245) and Sona S.M (Reg. No. 2019265) to the Department of Zoology, Holy Cross College (Autonomous), Nagercoil, affiliated to Manonmaniam Sundaranar University, Tirunelveli towards the partial fulfillment of the requirements for the degree of **Bachelor of Science in Zoology**, is a bonafide record of the work carried out by them under the guidance and supervision of **Dr. C. Anitha**, Asst. Professor, Department of Zoology, Holy Cross College (Autonomous), Nagercoil.

  
Supervisor.

  
Head of the Department  
**Dr. F. BRISCA RENUGA**  
HOD - Department of Zoology  
Holy Cross College  
Nagercoil - 629 004

Submitted for Viva Voce Examination held on..23.5.2022

  
External

Examiner

**RADIATION ON HUMAN HEALTH IN FEW SELECTED AREAS**

*Dissertation submitted to Holy Cross College (Autonomous) Nagercoil, affiliated to Manonmaniam Sundaranar University, Tirunelveli, in partial fulfilment of the requirement for the award of the degree*

**BACHELOR OF SCIENCE**

**IN**

**ZOOLOGY**

Submitted by

**AJOLA RESI, S.R. (Reg. No.:2019229)**

**ESTHER ABIKA, L. (Reg. No.: 2019243)**

**PISON, S. (Reg. No.: 2019250)**

**RESHMA, R. (Reg. No.: 2019258)**

**RUBISHA, K. (Reg. No.: 2019260)**



**DEPARTMENT OF ZOOLOGY**

**HOLY CROSS COLLEGE (AUTONOMOUS)**


**NAGERCOIL-629 004**

**BONAFIDE CERTIFICATE**

This is to certify that the dissertation entitled "RADIATION ON HUMAN HEALTH IN FEW ELECTED AREAS" submitted by AJOLA RESI, S.R. (Reg. No.:2019229) ESTHER ABIKA, L. (Reg. No.: 2019243), PISON, S. (Reg. No.: 2019250), RESHMA, R. (Reg. No.: 2019258) and RUBISHA, K. (Reg. No.: 2019260) of Holy Cross College (Autonomous), affiliated to Manonmaniam Sundaranar University, Tirunelveli, in partial fulfilment of the requirement for the award of the Degree of Bachelor of Science in Zoology is a bonafide record of the work carried out by them under the guidance of Dr. C. JOSEPHINE PRIYATHARSHINI, M.Sc., B.Ed., Ph.D., Assistant Professor, Department of Zoology, Holy Cross College (Autonomous), Nagercoil, during the academic year 2021-2022.



**SUPERVISOR**



**HEAD OF THE DEPARTMENT**

Dr. F. BRISCA RENUGA  
HOD - Department of Zoology  
Holy Cross College  
Nagercoil - 629 004

Submitted for the viva-voce examination held on 22.05.2022.



**EXTERNAL EXAMINER**

**THE ANTIMICROBIAL ACTIVITY OF *CARDIOSPERMUM*  
*HALICACABUM* AND *CLERODENDRUM PHLOSMIDS***

Project report submitted to Holy Cross College (Autonomous), Nagercoil  
affiliated to Manonmaniam Sundaranar University, Tirunelveli, in partial fulfilment of  
the requirements for the award of the Degree of

**BACHELOR OF SCIENCE  
IN  
ZOOLOGY**

Submitted by

Name	Reg. No
Anantha Lakshmi S	2019231
Arul Deepika A	2019234
Denno E	2019242
Preethi S	2019253
Rosari Jenifer S	2019253



**DEPARTMENT OF ZOOLOGY  
HOLY CROSS COLLEGE (AUTONOMOUS)  
NAGERCOIL - 629004  
May - 2022**

Signature of the Examiner

Signature of the Head of the Department

**Dr. F. BRISCA RENUGA  
HOD - Department of Zoology  
Holy Cross College  
Nagercoil - 629 004**

Dr. S. Prakash Shoba, M.Sc., M. Phil., Ph.D., PG Dip. HRM

Assistant Professor in Zoology

Holy Cross College (Autonomous)

Nagercoil - 4

### CERTIFICATE

This is to certify that the dissertation entitled "The antimicrobial activity of *Cardiospermum halicacabum* and *Clerodendrum phlosmids*." submitted to Holy Cross College (Autonomous), Nagercoil affiliated to Manonmanium Sundaranar University, Tirunelveli in partial fulfilment of the requirements for the award of the degree of Bachelor of Science in Zoology is a bonafide work done by Anantha Lakshmi S, Arul Deepika A, Denno E, Preethi S and Rosari Jenifer S at the Department of Zoology, Holy Cross College (Autonomous), Nagercoil during the academic year 2021-2022 under my guidance and supervision. This dissertation or any part of this has not been submitted elsewhere for any other degree.

Place: Nagercoil

Date: 23.05.2022



(Dr. S.PRAKASH SHOBA)



**DETECTION OF ADULTERATION IN FEW COMMON FOOD PRODUCTS**

*Project report submitted to Holy Cross College (Autonomous), Nagercoil, affiliated to  
Manonmaniam Sundaranar University, Tirunelveli in partial fulfillment of the  
requirements for the award of the degree of*

**BACHELOR OF SCIENCE  
IN  
ZOOLOGY**

*By*

<b>Anisha, R</b>	<b>-</b>	<b>(Reg. No. 2019232)</b>
<b>Ashfina, S</b>	<b>-</b>	<b>(Reg. No. 2019235)</b>
<b>Gnana Joensi, J</b>	<b>-</b>	<b>(Reg. No. 2019244)</b>
<b>Pearlin Sushma, C.K</b>	<b>-</b>	<b>(Reg. No. 2019249)</b>
<b>Reneefa, P</b>	<b>-</b>	<b>(Reg. No. 2019256)</b>



**DEPARTMENT OF ZOOLOGY  
HOLY CROSS COLLEGE (AUTONOMOUS)**


**NAGERCIOIL - 629 004**

**MAY - 2022**

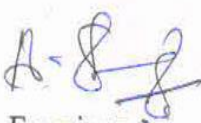
**BONAFIDE CERTIFICATE**

This is to certify that the dissertation entitled “**Detection of adulteration in few common food products**” submitted by **Anisha, R (Reg. No. 2019232), Ashfina, S (Reg. No. 2019235), Gnana Joensi, J, (Reg. No. 2019244), Pearlin Sushma, C.K - (Reg. No. 2019249) and Reneefa, P (Reg. No. 2019256)** to the Department of Zoology, Holy Cross College (Autonomous), Nagercoil, affiliated to Manonmaniam Sundaranar University, Tirunelveli towards the partial fulfillment of the requirements for the degree of **Bachelor of Science in Zoology**, is a bonafide record of the work carried out by them under the guidance and supervision of **Dr. C. Anitha**, Asst. Professor, Department of Zoology, Holy Cross College (Autonomous), Nagercoil.

  
Supervisor.

  
Head of the Department  
**Dr. F. BRISCA RENUGA**  
HOD - Department of Zoology  
Holy Cross College  
Nagercoil - 629 004

Submitted for Viva Voce Examination held on 23.05.2022

  
Examiner

External

**DEPARTMENT OF COMPUTER SCIENCE**

**ART GALLERY**

*Submitted in partial fulfillment of the requirement for the degree of*

**BACHELOR OF COMPUTER SCIENCE**

**Of Manonmaniam Sundaranar University, Tirunelveli**

Submitted by

J.ANTO MEDONA (2019273)

R.SHENU ROBERT (2019312)

V.PASTUS STEPHINA GARFRAY (2019301)

Under the Guidance of

Ms.Bithiah Blessie.V.R M.sc,B.Ed,M.Phil



**DEPARTMENT OF COMPUTER SCIENCE**

**HOLY CROSS COLLEGE (Autonomous)**

**NAGERCOIL – 629 004.**

**LEO INTERIOR DESIGNS**

Submitted in partial fulfillment of the requirement for the degree of

**BACHELOR OF COMPUTER SCIENCE**

**Of Manonmaniam Sundaranar University, Tirunelveli**

Submitted by

**A. JOELLINE ANNA (2019291)**

**V.MARY ANCITA (2019296)**

**N.RESHMA (2019302)**

Under the Guidance of

**Mrs. J. Anto Hepzie Bai , B. Sc, MCA, M. Phil, B.Ed**



**DEPARTMENT OF COMPUTER SCIENCE**

**HOLY CROSS COLLEGE (Autonomous)**

**NAGERCOIL – 629004**

**HOME COOKING**

*Submitted in partial fulfillment of the requirement for the degree of*

**BACHELOR OF COMPUTER SCIENCE**

Of Manonmaniam Sundaranar University, Tirunelveli

Submitted by

**M.ABISHA (2019269)**

**J.SAHAYA FLARIN (2019307)**

**P.C SOWMIYA (2019313)**

Under the Guidance of

**Mrs. B. Pillai Archana, B.Sc, M.Sc, M.Phil. (Assistant Professor)**



**DEPARTMENT OF COMPUTER SCIENCE**

**HOLY CROSS COLLEGE (Autonomous)**

**NAGERCOIL- 629004.**

**DEPARTMENT OF ENGLISH**

**Magnifying Themes in Anuja Chauhan's *Those Pricey Thakur Girls***

PROJECT REPORT SUBMITTED TO  
HOLY CROSS COLLEGE (AUTONOMOUS)  
[ Manonmaniam Sundaranar University ]  
IN PARTIAL FULFILMENT OF THE REQUIREMENT  
FOR THE AWARD OF THE DEGREE OF  
Bachelor of Arts

By

<b>Name</b>	<b>Reg. No</b>
Abishiniya Jenusha. J	2019408
Bebin Dharshini. F. R	2019422
Benisha. A	2019423
Benisha. M. L.	2019424
Bharathi. S	2019425

Under the guidance of  
Ms. Githika.T MA., M.Phil.



**PG & RESEARCH DEPARTMENT OF ENGLISH**  
**HOLY CROSS COLLEGE (AUTONOMOUS)**  
**NAGERCOIL**  
**DECEMBER 2021**

  
External Examiner



Ms. Githika.T MA., M.Phil.  
PG & Research Department of English,  
Holy Cross College (Autonomous),  
Nagercoil – 629004

**CERTIFICATE**

This is to certify that the project report entitled "**Magnifying Themes in Anuja Chauhan's *Those Pricey Thakur Girls***" is a bonafide project work done during 2021-2022 under my guidance and supervision and that the project has not previously formed the basis for the award to the candidates of any Degree, Diploma or any other similar title.

Place : Nagercoil

Date : December 2021

  
Head of the Department  
**Dr. ALBY GRACE** M.A., M.Phil., Ph.D.  
(Dr. Alby Grace)  
HEAD OF THE DEPARTMENT  
PG & RESEARCH DEPT. OF ENGLISH  
HOLY CROSS COLLEGE (AUTONOMOUS)  
NAGERCOIL - 629 004

  
Guide  
( Ms.Githika.T)



**ARAVIND ADIGA'S *THE WHITE TIGER*: A THEMATIC STUDY**  
PROJECT REPORT SUBMITTED TO  
HOLY CROSS COLLEGE (AUTONOMOUS)  
IN PARTIAL FULFILMENT OF THE REQUIREMENT  
FOR THE AWARD OF THE DEGREE OF  
**Bachelor of Arts**

by

<b>Name</b>	<b>Reg. No</b>
Ann Shoja. M	2019415
Gifty.V	2019434
Heano Sellet. H	2019435
Helen Nayaki. B	2019436
Immaculate Rishiba. A	2019437

Under the guidance of

**Dr. J.Bhavani, B.Ed., M.A., M.Phil., Ph.D.**



**PG & RESEARCH DEPARTMENT OF ENGLISH**  
**HOLY CROSS COLLEGE,**  
**NAGERCOIL**  
**DECEMBER 2021**

  
**External Examiner**





**A Mother's Devotion and Family's Penitence: A Study  
On Shin Kyung-sook's *Please Look After Mother*  
PROJECT REPORT SUBMITTED TO  
HOLY CROSS COLLEGE (AUTONOMOUS)  
IN PARTIAL FULFILMENT OF THE REQUIREMENT  
FOR THE AWARD OF THE DEGREE OF  
**Bachelor of Arts****

By

Name	Register No
Aarthiha M.K.	2019406
Ajiesya D.P.	2019410
Alfiya M.	2019411
Ani Alicia K.	2019413
Anish Jofinsha J.	2019414

Under the guidance of

Dr. Selva Mary Gokila S. George, M.A., M.Phil., Ph.D., CTE.,  
M.A(JMC)., M.Sc.(Psy)



**PG & RESEARCH DEPARTMENT OF ENGLISH  
HOLY CROSS COLLEGE (AUTONOMOUS)  
NAGERCOIL  
DECEMBER 2021**

A Contrastive Analysis of Ruth Ware's *The Woman in Cabin 10*

PROJECT REPORT SUBMITTED TO  
HOLY CROSS COLLEGE (AUTONOMOUS)  
IN PARTIAL FULFILMENT OF THE REQUIREMENT  
FOR THE AWARD OF THE DEGREE OF

**Bachelor of Arts**

Submitted by

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Apsala. S	2019416
Ashceena Merly. A	2019417
Ashika. J	2019419
Asmi Reshma. D	2019421


Under the guidance of  
Ms. Githika.T M.A., M.Phil.



PG & RESEARCH DEPARTMENT OF ENGLISH  
HOLY CROSS COLLEGE (AUTONOMOUS)

NAGERCOIL

DECEMBER 2021

  
External Examiner



**Psychological Study of Cormac McCarthy's *The Road***  
**PROJECT SUBMITTED TO**  
**Holy Cross College (Autonomous) Nagercoil**  
**[Manonmaniam Sundaranar University]**  
**IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR**  
**THE AWARD OF THE DEGREE OF**  
**BACHELOR OF ARTS**

Submitted by

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Under the guidance of

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**PG & Research Department of English**

**Holy Cross College (Autonomous)**

**Nagercoil-4**

**December 2021**

**External Examiner**

**DEPARTMENT OF ENGLISH (SF)**

**Racial Discrimination and Insecure Homeland: A Black's  
Perspective in Lorrie Moore's *A Gate at the stairs***

**PROJECT SUBMITTED TO**

**Holy Cross College (Autonomous) Nagercoil  
[Manonmaniam Sundaranar University]**

**IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE  
AWARD OF THE DEGREE OF  
BACHELOR OF ARTS**

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**PG & Research Department of English**

**Holy Cross College (Autonomous)**

**Nagercoil-4**

**December 2021**

**DEPARTMENT OF ECONOMICS**

**AN ECONOMIC STUDY ON CONSTRUCTION WORKERS IN  
SOKKANKUDIRUPU VILLAGE OF THOOTHUKUDI DISTRICT**

*A project report submitted to Holy Cross College (Autonomous) Nagercoil  
Affiliated to Manonmaniam Sundaranar University in partial fulfilment of the  
requirements of the degree of*

**BACHELOR OF ARTS**

*Under the Guidance of*

**Ms. J. Josephine Shiny, M.A., M.Phil. B.Ed**

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**DEPARTMENT OF ECONOMICS  
HOLY CROSS COLLEGE (AUTONOMOUS)  
NAGERCOIL-629004**

**2021-2022**

**AN ECONOMIC STUDY ON WOMEN WORKERS IN TEXTILES  
WORKERS IN NAGERCOIL TOWN OF KANYAKUMARI  
DISTRICT**

*A project report submitted to  
Holy cross college (Autonomous) Nagercoil  
Affiliated to Mannamuniam Sundararam University  
In partial fulfillment of the requirements of the degree of*

**BACHELOR OF ARTS**

*Under the guidance of*

**Dr. S. VIMAL DOLL, M.A., M. Phil., Ph.D**

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**DEPARTMENT OF ECONOMICS  
HOLY CROSS COLLEGE (AUTONOMOUS)  
NAGERCOIL-629004**

**2021-2022**



**A STUDY ON THE IMPACT OF HOTEL WORKERS DUE TO  
COVID-19 PANDAMIC IN NAGERCOIL**

*A Project work submitted to Holy Cross College (Autonomous) Nagercoil affiliated to  
Manonmaniam Sundaranar University in partial fulfilment of the requirements for the  
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*Under the Guidance of*

**Dr.S.JENI SANJANA. M.A., M.Phil., MBA., HDCA., Ph.D.**

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**DEPARTMENT OF ECONOMICS  
HOLY CROSS COLLEGE (AUTONOMOUS)  
NAGERCOIL - 629004**

**2021 - 2022**

**AN ECONOMIC STUDY ON MODERNIZATION OF AGRICULTURE  
FARMING IN PARAKKAI VILLAGE OF  
KANYAKUMARI DISTRICT**

*A project report submitted to  
Holy cross college (Autonomous) Nagercoil  
Affiliated to Manonmaniam Sundaranar University  
In partial Fulfilment of the requirements of the degree of*

**BACHELOR OF ARTS**

*Under the Guidance of*

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**DEPARTMENT OF ECONOMICS  
HOLY CROSS COLLEGE (AUTONOMOUS)  
NAGERCOIL-629004  
2021-2022**



**A STUDY ON THE USAGE OF SOCIAL MEDIA OF WOMEN  
COLLEGE STUDENTS IN NAGERCOIL.**

*A project report submitted to Holy Cross College (Autonomous)  
Nagercoil affiliated to Manonmaniam Sundaranar University in the  
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*Under the guidance of*

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**DEPARTMENT OF ECONOMICS  
HOLY CROSS COLLEGE (AUTONOMOUS)**

**NAGERCOIL-629004**

**2021-2022.**

**DEPARTMENT OF COMMERCE**

**A STUDY ON EFFECTIVENESS OF ONLINE ADVERTISING**

**Project report submitted to Holy Cross College (Autonomous),  
Nagercoil affiliated to Manonmaniam Sundaranar University,  
Tirunelveli in partial fulfilment of the requirement for the award of  
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**BACHELOR OF COMMERCE**

**Submitted by**

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**Under the Guidance of**

**Dr.S.MARY PEARLY SUMATHI, M.Com , B . Ed, M.Phil, Ph. D**



**DEPARTMENT OF COMMERCE**

**HOLY CROSS COLLEGE**

**NAGERCOIL-629004**

**DECEMBER-2021**



**Dr. M. Mary Helen Stella, M.Com., M.Phil., Ph.D.,**

Head & Associate Professor in commerce,

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Nagercoil – 629 004.

**CERTIFICATE**

This is to certify that the project work entitled “**A STUDY ON IMPACT OF SOCIAL MEDIA ON YOUNG CONSUMERS BUYING BEHAVIOUR**” is a record of work done by **Ancilin viji. A, Anto Jerlin Rino. J, Archana. S, Arockia Manisha. P, Arockiya Mary. J, Jiny Sharmy. J.** under my supervision and guidance and submitted in partial fulfilment of the requirement for the Degree of Bachelor of Commerce. It has not been submitted for the award of any other similar titles.

Place: Nagercoil

*M. Mary Helen Stella*  
**SUPERVISOR**

Date: 15.12.2021

*M. Mary Helen Stella*  
**HEAD OF THE DEPARTMENT**

*[Signature]*  
**EXTERNAL EXAMINER**

Dr. M. MARY HELEN STELLA  
Head & Associate Professor in Commerce  
Holy Cross College (Autonomous),  
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**A STUDY ON IMPACT OF SOCIAL MEDIA ON YOUNG CONSUMERS**

**BUYING BEHAVIOUR**

A project report submitted to Holy cross college (Autonomous), Nagercoil

Affiliated to Manonmaniam Sundaranar University, Tirunelveli

in partial fulfilment of the requirement for the award of the degree of

**BACHELOR OF COMMERCE**

Submitted by

<b>Name</b>	<b>Reg. No</b>
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Under the guidance of

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**DEPARTMENT OF COMMERCE**

**HOLY CROSS COLLEGE (AUTONOMOUS)**

**NAGERCOIL- 629 004**

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**Dr. M. MARY HELEN STELLA, M. Com., M. Phil, Ph.D.**

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**Nagercoil-629 004**

**CERTIFICATE**

This is to certify that the project work entitled “A Study on usage pattern of online payment mode among customers in Nagercoil” is a bonified record of work done by A. Arthi, N. Baby Abirami, S. Bamisha, K. Bhigaa, under my supervision and guidance and submitted in partial fulfilment of the requirement for the Degree of Bachelor of Commerce. It has not formed basis for the award of any other degree, diploma or any other similar titles.

**Place: Nagercoil**

**Date: 15.12.2021**

*H. Helen Stella*  
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*H. Helen Stella*  
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**Dr. M. MARY HELEN STELLA**  
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NAGERCOIL - 629 004.

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**EXTERNAL EXAMINAR**



**A STUDY ON USAGE PATTERN OF ONLINE PAYMENT MODE  
AMONG CUSTOMERS IN NAGERCOIL.**

**Project report submitted to Holy Cross College (Autonomous),  
Nagercoil affiliated to Mannammaniam Sundaranar University,  
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**BACHELOR OF COMMERCE**

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<b>Name</b>	<b>Reg. No</b>
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**Dr. M. MARY HELEN STELLA, M. Com, M Phil, Ph.D.**



**DEPARTMENT OF COMMERCE**

**HOLY CROSS COLLEGE**

**NAGERCOIL-629004**

**DECEMBER -2021**



**Dr. M. Mary Helen Stella, M .Com, M. Phil, Ph.D.,**  
Associate Professor in commerce,  
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Nagercoil-629004.

**CERTIFICATE**

This is to certify that the project work entitled “A STUDY ON THE LEVEL OF AWARENESS AND PRECEPTION TOWARDS E- BANKING SERVICES AMONG E- BANKING CUSTOMERS IN NAGERCOIL” is a bonafide record of work done by **Abisha. M, Agnes Golda.X, Akshaya.S, Aneeta.P.R, Meka.R** under my supervision and guidance and submitted for the partial fulfillment of the requirement for the degree of Bachelor of Commerce. It has been submitted for the degree of Bachelor of Commerce. It has been not submitted for the award of any other similar titles.

Place : Nagercoil

Date : 15/12/2021

*M. Mary Helen Stella*  
**SUPERVISOR**

*M. Mary Helen Stella*  
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ASSOCIATE PROFESSOR  
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DEPARTMENT OF COMMERCE  
HOLY CROSS COLLEGE (AUTONOMOUS)  
NAGERCOIL - 629 004.



**AWARENESS AND PERCEPTION OF CONSUMERS TOWARDS GREEN FAST  
MOVING GOODS IN NAGERCOIL TOWN**

**A Study Report Submitted to Holy Cross College (Autonomous) affiliated to  
Manonmaniam Sundaranar University is partial fulfillment of the requirement  
for the award of the degree of  
BACHELOR OF COMMERCE**

**Submitted by**

2019572	M. Chairman Brindiya
2019573	K. Chenifer
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2019577	J. George Roshini
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**DEPARTMENT OF COMMERCE  
HOLY CROSS COLLEGE (AUTONOMOUS)**

**NAGERCOIL-629004**

**DECEMBER-2021**



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Assistant Professor in Commerce,

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**CERTIFICATE**

This is to certify that the project work entitled 'A STUDY ON AWARENESS AND PERCEPTION OF CONSUMERS TOWARDS GREEN FAST MOVING GOODS IN NAGERCOIL TOWN' is a bonafide record of work done by M. CHAIRMAN BRINDIYA, K. CHENIFER, J. FATHIMA ROSHIKA, J. GEORGE ROSHINI, M. JANAVIKHA, M. MAHIBA under my supervision and guidance and submitted in partial fulfillment of the requirement for the Degree of Bachelor of Commerce. It has not formed the basis for the award of any degree, diploma, or any other similar title.

Place: Nagercoil

Date: 15.12.2021

  
Supervisor 15/12/2021



Head of the Department

Dr. M. MARY HELEN STELLA  
ASSISTANT PROFESSOR  
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NAGERCOIL - 629004

  
External Examiner



**NET BANKING SERVICES IN RURAL AREAS OF  
KANYAKUMARI DISTRICT**

Project report submitted to Holy Cross College (Autonomous), Nagercoil  
affiliated to Manonmaniam Sundaranar University, Tirunelveli in partial  
fulfilment of the requirement for the award of the Degree of

**BACHELOR OF COMMERCE**

Submitted by

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Under the Guidance Of

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**DEPARTMENT OF COMMERCE**

**HOLY CROSS COLLEGE**

**NAGERCOIL-629 004**

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**Nagercoil-629 004**

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This is to certify that the project work entitled “**A COMPARATIVE STUDY OF TRADITIONAL AND ONLINE CLASSES**” is a bonified record of work done by, **Jone Raja Sajina. P, Jose Angel Jen. J, Mary Snow Sherin. M, Roch Nihitha. L**, under my supervision and guidance and submitted in partial fulfilment of the requirement for the Degree of Bachelor of Commerce . It has not formed the basis for the award of any other degree, diploma or any other similar titles.

**Place: Nagercoil**

**Date: 15/12/2021**



**SUPERVISOR**

  
**HEAD OF THE DEPARTMENT**



**EXTERNAL EXAMINAR**

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HOLY CROSS COLLEGE (AUTONOMOUS)  
NAGERCOIL - 629 004.



**DEPARTMENT OF COMMERCE (SF-I)**

**A STUDY ON PROBLEMS AND PROSPECTS OF ONLINE  
SHOPPING IN NAGERCOIL TOWN**

Project report submitted to **HOLY CROSS COLLEGE**  
(Autonomous), Nagercoil

In partial fulfillment of the award of the degree of  
**BACHELOR OF COMMERCE**

**By**

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<b>M. JanavaCelcia</b>	<b>191195</b>
<b>A. Jancy Rani</b>	<b>191196</b>

**Under the guidance of**  
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**DEPARTMENT OF COMMERCE**  
**HOLY CROSS COLLEGE (Autonomous)**  
**Nagercoil- 620 001**  
**November - 2021**



**Mrs. S. MERLIN VISTA M.Com, M.Phil, MBA, SLET, NET**

Head and Assiant Professor,

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Holy Cross College (Autonomous)

Nagercoil-629004

**CERTIFICATE**

This is certify that the project entitled, "ROLE OF EMOTIONAL INTELLIGENCE IN PROMOTING JOBPERFOMANCE OF TEACHERS WORKING IN HOLYCROSS COLLEGE (AUTONOMOUS), NAGERCOIL" is a bonafide record of work done by M.Afrin Sulaiha, A.C.Agshatha, C. Akgnes, A. Akhila, A.Alina under my supervision and guidance and submitted in partial fulfillment of the requirements for the degree of Bachelor of Commerce. It has not formed the basis for the award of any degree, diploma, or any other similar title.

Place :Nagercoil

Date : 15/12/21

*S. Merlin Vista*  
Supervisor

*S. Merlin Vista*  
Head of the department

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External examiner

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Holy Cross College (Autonomous)  
Nagercoil-629004



**ROLE OF EMOTIONAL INTELLIGENCE IN PROMOTING JOB  
PERFORMANCE OF TEACHERS IN HOLY CROSS  
COLLEGE(AUTONOMOUS), NAGERCOIL.**

**Submitted to**

Holy Cross College(Autonomous), Nagercoil.

*In partial fulfillment of the requirements  
for the award of the degree of*

**BACHELOR OF COMMERCE**

**Submitted by**

<b>M.Afrin Sulaiha</b>	<b>2019619</b>
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**DEPARTMENT OF COMMERCE  
HOLY CROSS COLLEGE(AUTONOMOUS)  
NAGERCOIL-629004  
NOVEMBER-2021**



Dr.G.Sahaya Shiny , M.Com ., M.Phil ., Ph.D.

Assistant professor of commerce,

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**CERTIFICATE**

This is to certify that the dissertation entitled “**A STUDY ON CUSTOMER SATISFACTION TOWARDS RELIANCE TRENDS IN NAGERCOIL**” is a bonafide research work for the award of the degree of Bachelor of commerce. It has not formed the basis of the award of any degree, diploma and any other similar titles.

Place : Nagercoil

Date : 15-12-2021

*U. K. S.*  
Examiner 20/12/2021

*S. Merlin Viste*  
Head of the Department

*G. Shiny*  
Guide supervisor



**A STUDY ON CUSTOMER SATISFACTION TOWARDS  
RELIANCE TRENDS IN NAGERCOIL**

**Submitted to**

Holy Cross College (Autonomous), Nagercoil

In partial fulfilment of the requirement

for the award of the degree of

**BACHELOR OF COMMERCE**

Submitted By

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Chantika.B	(2019627)
Fathima Mul Thaseema.R	( 2019629)

Under the guidance of

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**DEPARTMENT OF COMMERCE**

**HOLY CROSS COLLEGE (AUTONOMOUS)**

**NAGERCOIL- 629004**

**November-2021**





**Dr. P. M. Sirumalar Rajam, M. Com., B.Ed., M.Phil., Ph.D.**

**Assistant**

**Professor of Commerce,**

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**CERTIFICATE**

This is to certify that the project entitled "A STUDY ON EMPLOYEE WELFARE MEASURES WITH REFERENCE TO ISRO" is a bona-fide record of work done by REEJA MEDILDA. J, RINOSHA. B, RUBA DHARSHINY.A, SAHAYA APSA. P, SAHAYA CONSTENSE HELINA. S, SAHAYA JOSHINL N under my supervision and guidance and submitted in Partial fulfilment of the requirements for the degree of Bachelor of Commerce. It has not been submitted for the award of any other similar titles.

Place: Nagercoil

Date: 15.12.2021

  
**HEAD OF THE DEPARTMENT**

**Mrs. S. Merlin Vista**

  
**SUPERVISOR**

**Dr. P. M. Sirumalar Rajam**

  
**EXTERNAL EXAMINER**



**A STUDY ON EMPLOYEE WELFARE MEASURES WITH REFERENCE TO  
ISRO  
(INDIAN SPACE RESEARCH ORGANISATION)**

*Project Report Submitted to*  
*Holy Cross College (Autonomous), Nagercoil*  
*Affiliated to Manonmaniam Sundaranar University, Tirunelveli*  
*in Partial fulfillment of the requirement for the award of the degree of*  
**BACHELOR OF COMMERCE**

***Submitted By***

<b>REEJA MEDILDA. J</b>	<b>2019651</b>
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<b>SAHAYA APSA. P</b>	<b>2019654</b>
<b>SAHAYA CONSTENSE HELINA. S</b>	<b>2019655</b>
<b>SAHAYA JOSHINI. N</b>	<b>2019656</b>

***Under the guidance of***

***Dr. P. M. Sirumalar Rajam M. Com, B.Ed., M.Phil., Ph.D.***



**DEPARTMENT OF COMMERCE SELF FINANCE HOLY CROSS COLLEGE  
(AUTONOMOUS)  
NAGERCOIL-4  
DECEMBER 2021**



Mrs. A.Franklin Ragila, M.Com. , MCS., M.Phil., NET.

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Holy Cross College (Autonomous)

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### CERTIFICATE

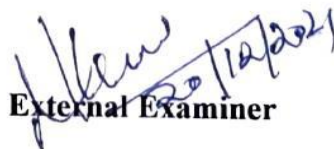
This is to certify that the dissertation entitled “**THE STUDY ON THE SOCIO-ECONOMIC CONDITIONS OF FISHERMEN AT SPECIAL REFERENCE TO IDINDAKARAI VILLAGE IN TIRUNELVELI DISTRICT**” is a bonafide research work done by **LESHA .E, LIZAL PONMANI .I, LOURDU MAHIMA .J, MARIA SNEGA .J** under my supervision, guidance and submitted in partial fulfilment for degree of Bachelor of Commerce. It has not formed the basis of the award of any degree, diploma or any other similar title.

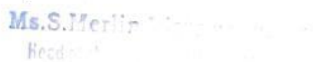
**Place:** Nagercoil

**Date:** 15/12/2021

  
**Guide & supervisor**

  
**Head of the Department**

  
**External Examiner**

  
Ms. S. Merlin  
Head of the Department



**THE STUDY ON THE SOCIO-ECONOMIC CONDITIONS OF  
FISHERMEN AT SPECIAL REFERENCE TO IDINDAKARAI  
VILLAGE IN TIRUNELVELI DISTRICT**

Project submitted to

*Holy cross college (Autonomous) Nagercoil*

*In partial fulfilment of the requirement*

*For the award of the degree of*

**BACHELOR OF COMMERCE**

By

<b>LESHA .E</b>	<b>2019641</b>
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Under the guidance of

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**DEPARTMENT OF COMMERCE  
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NAGERCOIL-4**



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### CERTIFICATE

This is to certify that the dissertation entitled "A STUDY ON CONSUMERS' PERCEPTION ON OFFLINE SHOPPING AND ONLINE SHOPPING WITH REFERENCE TO NAGERCOIL" is a bonafide research work done by JENIFER.IJENISHA.C, KANISTA.K, KIRUTHIKA.A, KRISHNAVENI.M under my supervision, guidance and submitted in partial fulfilment for degree of Bachelor of Commerce. It has not formed the basis of the award of any degree, diploma or any other similar title.

**Place:** Nagercoil

**Date:** 15.12.2021

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**A STUDY ON CONSUMERS' PERCEPTION ON OFFLINE SHOPPING  
AND ONLINE SHOPPING WITH REFERENCE TO NAGERCOIL**

Project submitted to

*Holy cross college (Autonomous) Nagercoil*

*In partial fulfilment of the requirement*

*For the award of the degree of*

**BACHELOR OF COMMERCE**

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This is to certify that the project work entitled “A Study on the Impact of E-banking Services among Consumer in Nagercoil Town” is a bonofide research work done by **Nabeeha Basheer Ahamed, B.Nithisha, K.Pavithra, G. Preetha, A. Rasmi** under my supervision and guidance and submitted in partial fulfillment of the requirements for the Degree of Bachelor of Commerce .It has not formed the basis for the award of any degree, diploma, or any other similar title.

**Place: Nagercoil**

**Date: 15 - 12 - 2021**



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**A Study on the Impact of E-banking Services among  
Consumer in Nagercoil Town**

A study report submitted to

**Holy Cross College (Autonomous), Nagercoil**

*In partial fulfillment of the requirement for the award of the degree of*

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## CERTIFICATE

This is to certify that the project entitled "A STUDY ON PASSENGER SATISFACTION TOWARDS ROAD TRANSPORTATION IN NAGERCOIL" is a bonafide record of work done by the project team members under my supervision and guidance and is submitted in partial fulfilment of the degree of the Bachelor of Commerce. It has not been submitted for the award of any degree, diploma, associateship or fellowship of any university or institution.

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**A STUDY ON PASSENGER SATISFACTION TOWARDS  
ROAD  
TRANSPORTATION IN KANNIYAKUMARI**

*Project Report submitted to  
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This is to certify that the project entitled “A STUDY ON JOB SATISFACTION AMONG PRIVATE SCHOOL TEACHERS IN NAGERCOIL TOWN” is a bonafide record of work done by the project team members under my supervision and guidance and is submitted in partial fulfillment of the degree of the Bachelor of Commerce. It has not been submitted for the award of any degree, diploma, associateship or fellowship of any university or institution.

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**DEPARTMENT OF COMMERCE (SF-II)**

**A STUDY ON FAST FOOD CONSUMPTION TOWARDS  
YOUNG GENERATION IN NAGERCOIL TOWN**

*Submitted to Holy Cross College (Autonomous), Nagercoil*

*In partial fulfillment for the award of the degree of*

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**A STUDY ON CUSTOMER SATISFACTION TOWARDS  
FLIPKART APPLICATION IN NAGERCOIL TOWN**

*Project work submitted to Holy Cross College (Autonomous), Nagercoil  
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**PROMOTIONAL TECHNIQUES ADOPTED BY THE SELLERS TO  
ATTRACT THE CONSUMERS**

Project report submitted to Holy Cross College (Autonomous ), Nagercoil.

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**Department of Commerce**

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**2021-2022**



***A STUDY ON IMPACT OF COVID-19 ON PADESTRIAN VENDORS IN  
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*Submitted to*

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**A STUDY ON MARTETING OF AGRICULTURAL PRODUCTS IN  
AGASTEESWARAM TALUK**

*Project work submitted to holy cross college (autonomous), Nagercoil  
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**A STUDY ON THE RESPONSIBILITY OF MEDIA TOWARDS THE  
SOCIETY IN NAGERCOIL TOWN**

*Project work submitted to Holy Cross College (Autonomous), Nagercoil*

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