

**NEW TECHNOLOGIES AND INNOVATIONS FOR CREATING
GREEN WORLD**

A PROJECT REPORT SUBMITTED BY

Ms. B.Abinaya prabha (2020C01)

Ms. M.Akshara (2020C02)

Ms. B.Akshaya varshini (2020C03)

Ms.S.Allwina jency (2020C04)

Ms.B.Balasre (2020C07)

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

BACHELOR OF SCIENCE

In

CHEMISTRY

UNDER THE GUIDANCE OF

Dr. M. PRIYADHARSANI



FATIMA COLLEGE (AUTONOMOUS)

Re-Accredited with 'A++' Grade by NAAC (4th Cycle)

**College with Potential for Excellence (2004-2019)
74th Rank in India Ranking 2020 (NIRF) by MHRD
Mary Land, Madurai – 625018, Tamil Nadu**

APRIL 2023

CERTIFICATE

This is to certify that a project entitled “New technologies and innovations for creating green world” is a bonafide record of work done by **B.Abinaya Prabha, M. Akshara, B. Akshaya Varshini, S. Allwina Jency, B. Balasre B.Sc.**, (chemistry) students of Fatima College, Madurai -18, during VI semester of the academic year 2020-2023 under our guidance.

Internal Guide



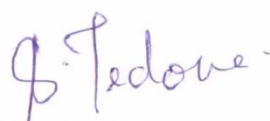
Dr.M.Priyadharsani,

Assistant Professor,

Department of Chemistry,

Fatima College,

Madurai – 625018.



Head of the Department

Dr.B.Medona,

Head and associate Professor,

Department of Chemistry,

Fatima College,

Madurai – 625018.

DECLARATION

We do hereby declare that that this dissertation entitled “**NEW TECHNOLOGIES & INNOVATIONS FOR CREATING GREE WORLD**” submitted to Kamaraj University in partial fulfillment of requirement for the award of **BACHELORS OF SCIENCE IN CHEMISTRY**, is a record of original research work done by us. We also declare that this dissertation or part of work has not been published earlier elsewhere in any manner.

B.Abinaya prabha (2020C01)

B. Abinaya Prabha

M.Akshara (2020C02)

M. Akshara

B.Akshaya varshini (2020C03)

B. Akshaya Varshini

S.Allwina jency (2020C04)

S. Allwina Jency

B.Balasre (2020C07)

B. Balasre.

ACKNOWLEDGEMENT

First and foremost, we would like to thank the Lord Almighty who has showered His wonderful blessings on us and helped us to carry our project toward success.

We express our sincere thanks to our principal Dr.Sr.G.CelineSahaya Mary and our beloved Secretary Dr. M. Francisca Flora for the liberty they have given us to complete the project.

We express our sincere sense of gratitude to Dr.B.Medona Head of the Department who supported us morally and provided us with all the necessary facilities in the laboratory to complete our project.

We convey our gratitude to our project guide Dr.M.Priyadharsani for her constant support and immense support and guidance throughout the journey.

Finally, we would like to thank each and every person responsible for the project to complete successfully.

We acknowledge project fund received under DST CURIE core grant for Women PG Colleges DST\CURIE –PG\2022\11

MAKING OUR ENVIRONMENT FRIENDLY

**A Project report submitted for partial fulfillment of the
requirement for the degree of**

BACHELOR OF SCIENCE IN CHEMISTRY

Submitted By

Ms. A. AROCKIYA AMALA SONIYA	(2020C06)
Ms. G. BOWYA DURGA	(2020C08)
Ms. D. CHRISTY	(2020C09)
Ms. M. DEVAKI	(2020C10)
Ms. E. FERMI	(2020C13)

UNDER THE GUIDANCE OF

Dr.B. VINOSHA



FATIMA COLLEGE (AUTONOMOUS)

Re-Accredited with 'A++' Grade by NAAC (4th Cycle)

College with Potential for Excellence,

Madurai - 625 018,


APRIL- 2023

CERTIFICATE

This is to certify that **A. Arockiya Amala Soniya, G. Bowya Durga, D. Christy, M. Devaki, E. Fermi** B.SC. CHEMISTRY students of Fatima College, Madurai have done the project work entitled **“MAKING OUR ENVIRONMENT FRIENDLY”** during the period of 2023 at Fatima College, Madurai-625018, under my guidance.

This is to certify that no part of the work have been presented for any degree / diploma or in any other.

Internal Guide


Dr. B. Vinosha

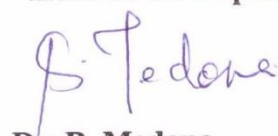
Assistant Professor

Department of Chemistry

Fatima College

Madurai- 625018

Head of the Department


Dr. B. Medona

Head and associate Professor

Department of Chemistry

Fatima College

Madurai-625018

DECLARATION

We do hereby declare that this dissertation entitled “ **MAKING OUR ENVIRONMENT FRIENDLY**” submitted to Madurai Kamaraj University in partial fulfilment of requirement for the award of **BACHELOR OF SCIENCE IN CHEMISTRY**, is a record of original research work done by us. We also declare that this dissertation or part of work has not been published earlier elsewhere in any manner.



A. AROCKIYA AMALA SONIYA (2020C06)



G. BOWYA DURGA (2020C08)



D. CHRISTY (2020C09)



M. DEVAKI (2020C10)



E. FERMI (2020C13)

ACKNOWLEDGEMENT

First and foremost we would like to thank the Lord Almighty who has showered His wonderful blessings on us and helped us to carry our project toward success.

We express our sincere thanks to our principal Dr.Sr.G.Celine Sahaya Mary and our beloved Secretary Dr. M. Francisca Flora for the liberty they have given us to complete the project.

We express our sincere sense of gratitude to Dr.B.Medona, Head of the Department who supported us morally and provided us with all the necessary facilities in the laboratory to complete our project.

We convey our gratitude to our project guide Dr.B.Vinoshia for her constant support and immense support and guidance throughout the journey.

Finally we would like to thank each and every person responsible for the project to complete successfully.

We acknowledge project fund received under DST CURIE core Grant for Women PG Colleges DST / CURIE – PG / 2022 /11

SUSTAINABLE CHEMISTRY FOR THE ENVIRONMENT

A PROJECT REPORT SUBMITTED BY

Ms. EZHIL. M (2020C12)

Mrs. GAYATHRI. S (2020C14)

Ms. GNANA JASMINE. J (2020C15)

Ms. HAMSAVARDHINI. S (2020C16)

Ms. HEMA JASMINE. A (2020C17)

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

BACHELOR OF SCIENCE

In

CHEMISTRY

UNDER THE GUIDANCE OF

Dr. V. ARUL DEEPA



FATIMA COLLEGE (AUTONOMOUS)

**Re-Accredited with 'A++' Grade by NAAC (4th Cycle)
Mary Land, Madurai – 625018, Tamil Nadu**

APRIL 2023

CERTIFICATE

This is to certify that a project entitled “Sustainable chemistry for the environment” is a bonafide record of work done by **Ezhil. M (2020C12), Gayathri. S (2020C14), Gnana jasmine. J (2020C15), Hamsavardhini. S (2020C16), Hema jasmine. A (2020C17)** B.sc chemistry students of Fatima College, Madurai during VI semester of the academic year 2020-2023 under our guidance.



Internal Guide

Dr. V. Arul Deepa

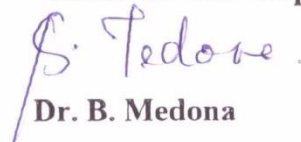
Assistant Professor,

Department of Chemistry,

Fatima College,

Madurai – 625018.

Head of the Department



Dr. B. Medona

Head and associate Professor,

Department of Chemistry,

Fatima College,

Madurai – 625018.

DECLARATION

We do hereby declare that this dissertation entitled “**sustainable chemistry for the environment**” submitted to Madurai Kamaraj University in partial fulfilment of requirement of the award of **BACHELOR OF SCIENCE IN CHEMISTRY**, is a record of original research work done by us. We also declare that this dissertation or part of work has not been published earlier in any manner.

Ezhil. M

Ezhil. M

(2020C12)

S. Gayathri
Gayathri. S

(2020C14)

J. GnanaJasmine
Gnana jasmine. J

(2020C15)

S. Hamsavardhini

Hamsavardhini. S

(2020C16)

Hema Jasmine. A
Hema jasmine. A

(2020C17)

ACKNOWLEDGEMENT

First and foremost we would like to thank the Lord Almighty who has showered His wonderful blessings on us and helped us to carry our project towards success.

We express our sincere thanks to our principal Dr.Sr.G.Celine Sahaya Mary and our beloved Secretary Dr. M. Francisca Flora for the liberty they have given us to complete the project.

We express our sincere sense of gratitude to Dr. B. Medona Head of the Department who supported us morally and provided us with all the necessary facilities in the laboratory to complete our project.

We convey our gratitude to our project guide Dr. V. Arul Deepa for her constant support and immense support and guidance throughout the journey.

Finally we would like to thank each and every person responsible for the project to complete successfully.

We acknowledge project fund received under DST CURIE core Grant for Women PG Colleges DST/ CURIE- PG/ 2022/11

GREEN CHEMISTRY IN SUSTAINABLE DEVELOPMENT

A Project report submitted for partial fulfilment of the requirement for the
degree of

BACHELOR OF SCIENCE IN CHEMISTRY

By

J. INFANTA SAGAYA SHALINI (2020C19)

S. JANANI (2020C20)

V. R. JANANI (2020C21)

A. A. JENI CHRISTY (2020C23)

A. JOE AMIRTHA (2020C25)

Under the guidance of

Dr. Sr. J. ARUL MARY

Assistant Professor



DEPARTMENT OF CHEMISTRY

FATIMA COLLEGE (AUTONOMOUS)

MADURAI-625 018

APRIL -2023

BONAFIDE CERTIFICATE

This is to certify that **J. Infanta Sagaya Shalini , S. Janani, V.R.Janani , A.A. Jeni Christy and A. Joe Amirtha** , B.Sc.CHEMISTRY students of Fatima College, Madurai have done the project work entitled “**GREEN CHEMISTRY IN SUSTAINABLE DEVELOPMENT**” during the period of 2022-2023 at Fatima College, Madurai-625018, under my guidance.



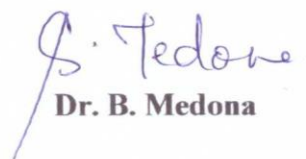
Dr. Sr. J. Arul Mary

Assistant Professor

Department of chemistry

Fatima college ,

Madurai -625018.



Dr. B. Medona

Head of Department

Department of Chemistry

Fatima College

Madurai -625018.

DECLARATION

We do hereby declare that this dissertation entitled “**GREEN CHEMISTRY IN SUSTAINABLE DEVELOPMENT**” submitted to Madurai Kamaraj University in partial fulfilment of requirement for the award of **BACHELOR OF SCIENCE IN CHEMISTRY**, is a record of original research work done by us.

J. Infanta Sagaya Shalini
J. INFANTA SAGAYA SHALINI (2020C19)

Tanani . S
S. JANANI (2020C20)

V.R. Janani.
V.R. JANANI (2020C21)

Jeni Christy. A. A
A.A. JENI CHRISTY (2020C23)

Joe Amirtha . A .
A. JOE AMIRTHA (2020C25)

ACKNOWLEDGEMENT

We whole heartedly surrender our sincere thanks to the Almighty who gave blessings for the successful completion of our project work.

We with great pleasure in expressing our sincere thanks to management and the principal **REV. Dr. Sr. G. CELINE SAHAYA MARY**, Fatima College, Madurai for giving permission to do the project work in College Campus.

We would like to attribute our sincere and heartfelt thanks to **Dr. B. Medona**, Head of the Department of Chemistry, Fatima College, Madurai for her constant encouragement to complete the project work.

We express our sincere thanks to our internal guide **Dr. Sr. J. Arul Mary**, Assistant professor, Fatima College, Madurai, for her support and constant encouragement in completing the project work.

We extend our sincere thanks to every staff member of Department of Chemistry, Fatima College, Madurai for their dedicated encouragement.

We acknowledge project fund received under DST CURIE core grant for women PG college DST\CURIE – UG\2022\11

FUTURE TRENDS IN GREEN CHEMISTRY BIOMASS ENERGY

A PROJECT REPORT SUBMITTED BY

Ms. K. SHANTHINI(2020C36)

Ms. M. PRIYA(2020C32)

Ms. E. LOSHANA(2020C29)

Ms. K. PRIYANKA(2020C33)

Ms. C. MACTALIN AJITHA(2020C30)

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

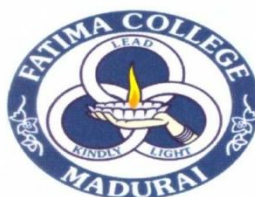
BACHELOR OF SCIENCE

in

CHEMISTRY

UNDER THE GUIDANCE OF

Dr. Mrs. B. SUGANTHANA



FATIMA COLLEGE, (AUTONOMOUS)

College with Potential for Excellence (2004-2023)

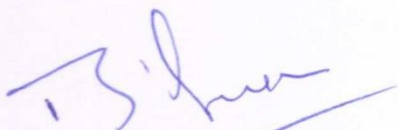
Re-Accredited with 'A++' by NAAC (4th cycle)

Mary Land, Madurai-625016, Tamil Nadu

APRIL 2023


CERTIFICATE

This is to certify that a project entitled “Biomass energy” is a bonafide record of work done by **Shanthini.K, Priya.M, Priyanka.K, Mactalin Ajitha.C, Loshana.E** B.Sc(chemistry) students of Fatima College, Madurai during VI semester of the academic year 2022-2023 under our guidance.



INTERNAL GUIDE

Dr.B.Suganthana,
Assistant professor,
Department of Chemistry,
Fatima College,
Madurai-625018



HEAD OF THE DEPARTMENT

Dr.B.Medona
Head and associate professor
Department of Chemistry,
Fatima College,
Madurai-625018

DECLARATION

We affirm that the project work tittle “**FUTURE TRENDS IN GREEN CHEMISTRY-BIOMASS ENERGY** ” being submitted in partial fulfilment for the award of **BACHELOR OF SCIENCE** is the original work carried out by us. It has not formed the part of any other project work submitted for award of any degree, or diploma, either in this or any other University.

Signature of the candidates

K. Shanthini.

Ms. K. Shanthini(2020C36)

M. Priya

Ms. M. Priya(2020C32)

E. Loshana

Ms. E. Loshana(2020C29)

K. Priyanka

Ms. K. Priyanka(2020C33)

C. Mactalin Ajitha

Ms. C. MactalinAjitha(2020C30)

ACKNOWLEDGEMENT

We grab this opportunity to thank all those who helped, guided and advised us in every walk of our life.

We would like to express my memorable gratitude to Our principal **Rev. Dr. Sr. G. Celine Sahaya Mary**, for her encouragement and support all the way from heart to undergo this course.

We convey our sincere sense of gratitude to **Dr. Mrs. B. MEDONA** Head of the department who has provided us with all the necessary facilities in the laboratory to complete our project successfully.

We express my sincere gratitude to **Mrs. B. SUGANTHANA** who guided us to do the project on “**FUTURE TRENDS IN GREEN CHEMISTRY-BIOMASS ENERGY**” and we are really happy to have this guide who gives motivation and helps us to collect materials.

We thank all the faculty members of Department of Chemistry, Fatima college, Madurai, Tamil Nadu, for their support throughout our project.

We acknowledge project fund received under DST CURIE core Grant for Women PG Colleges DST/CURIE-PG/2022/11

EFFECTIVE METHODS FOR WASTE MANAGEMENT

A PROJECT REPORT SUBMITTED BY

Ms.Rajsri.M (2020C34)

Ms.Rebeka. J (2020C35)

Ms. Sharmila. P (2020C37)

Ms.Sherin Samantha. V (2020C38)

Ms.Sivaranjani. J (2020C39)

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

BACHELOR OF SCIENCE

IN

CHEMISTRY

UNDER THE GUIDANCE

Dr. K.R.SUBIMOL



FATIMA COLLEGE (AUTONOMOUS)



Re-Accredited with 'A++' Grade by NAAC (4th Cycle)

**College with Potential for Excellence (2004-2019)
74th Rank in India Ranking 2020 (NIRF) by MHRD
Mary Land, Madurai – 625018, Tamil Nadu**

APRIL 2023

CERTIFICATE

This is to certify that a project entitled “**EFFECTIVE METHODS FOR WASTE MANAGEMENT**” is a bonafide record of work done by **.Rajsri. M , Rebeka. J, Sharmila. P, Sherin Samantha. V, Sivaranjani. J B.sc(chemistry)** students of Fatima College, Madurai during VI semester of the academic year 2020 - 2023 under our guidance.


Internal Guide
Head of the Department**Dr.K.R.SUBIMOL**

Assistant Professor,
Department of Chemistry,
FatimaCollege,
Madurai –625 018.

Dr.B.MEDONA

Head and associate Professor,
Department of Chemistry,
Fatima College,
Madurai –625018.

DECLARATION

We do hereby declare that this dissertation entitled “EFFECTIVE METHODS FOR WASTE MANAGEMENT” submitted to Madurai Kamaraj University in partial fulfillment of requirement for the award of **BACHELOR OF SCIENCE IN CHEMISTRY**, is a record of original research work done by us. We also declare that this dissertation or part of work has not been published earlier elsewhere in any manner.



**Rajsri. M,
(2020C34)**



**Rebeka.J,
(2020C35)**



**Sharmila.P,
(2020C37)**



**Sherin Samantha.V,
(2020C38)**



Sivaranjani. J

(2020C39)

ACKNOWLEDGEMENT

First and foremost we would like to thank the Lord Almighty who has showered His wonderful blessings on us and helped us to carry our project toward success.

We express our sincere thanks to our principal Dr.Sr.G.CelineSahaya Mary and our beloved Secretary Dr. M. Francisca Flora for the liberty they have given us to complete the project.

We express our sincere sense of gratitude to Dr.B.Medona Head of the Department who supported us morally and provided us with all the necessary facilities in the laboratory to complete our project.

We convey our gratitude to our project guide Dr.K.R.Subimol for her constant support and immense support and guidance throughout the journey.

Finally we would like to thank each and every person responsible for the project to complete successfully.

We acknowledge project fund received under DST CURIE core Grant for Women PG Colleges DST/CURIE-PG/2022/11

GREEN CHEMISTRY USED IN EVERYDAY LIFE

A PROJECT REPORT SUBMITTED BY

Ms. Smitha Angel . R (2020C40)

Ms. Swetha.S (2020C43)

Mrs.Thaslima Nasrin.S (2020C44)

Ms.Varshini.T (2020C47)

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

BACHELOR OF SCIENCE

In

CHEMISTRY

UNDER THE GUIDANCE OF

Dr.J.BELINDA ASHA



FATIMA COLLEGE (AUTONOMOUS)

Re-Accredited with 'A++' Grade by NAAC (4th Cycle)

**College with Potential for Excellence (2004-2019)
74th Rank in India Ranking 2020 (NIRF) by MHRD
Mary Land, Madurai – 625018, Tamil Nadu**

APRIL 2023

CERTIFICATE

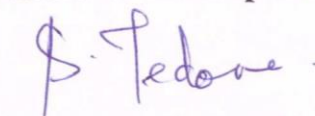
This is to certify that a project entitled "Green Chemistry used in everyday life" is a bonafide record of work done by **Smitha Angel.R, Swetha.S, Thaslima Nasrin.S, Varshini.T, B.sc(chemistry)** students of Fatima College, Madurai during VI semester of the academic year 2022-2023 under our guidance.

Internal Guide


Dr.J.Belinda Asha,

Assistant Professor,
Department of Chemistry,
Fatima College,
Madurai – 625018.

Head of the Department


Dr.B.Medona,

Head and associate Professor,
Department of Chemistry,
Fatima College,
Madurai – 625018.

DECLARATION

We do hereby declare that this dissertation entitled “**Green Chemistry used in everyday life**” submitted to Madurai Kamaraj University In partial fulfillment of requirement for the award of **BACHELOR OF SCIENCE IN CHEMISTRY**, is a record of original research work done by us. We also declare that this dissertation or part of work has not been published earlier elsewhere in any manner.

Smitha Angel .R .

Smitha Angel.R (2020C40)

Swetha .S .

Swetha.S (2020C43)

Thaslima Nasrin .S

Thaslima Nasrin.S (2020C44)

T. Varshini

Varshini.T (2020C47)

ACKNOWLEDGEMENT

First and foremost we would like to thank the Lord Almighty who has showered His wonderful blessings on us and helped us to carry our project toward success.

We express our sincere thanks to our principal **Dr.Sr.G.CelineSahaya Mary** and our beloved Secretary Dr. M. Francisca Flora for the liberty they have given us to complete the project.

We express our sincere sense of gratitude to **Dr.B.Medona**, Head of the Department who supported us morally and provided us with all the necessary facilities in the laboratory to complete our project.

We convey our gratitude to our project guide **Dr.J.Belinda Asha** for her constant support and immense support and guidance throughout the journey.

Finally we would like to thank each and every person responsible for the project to complete successfully.

We acknowledge project fund received under DST CURIE core Grant for Women PG Colleges DST/CURIE – PG / 2022 /11

GREEN PRACTICES IN LABORATORY

A PROJECT REPORT SUBMITTED BY

Ms. Trinity Mary Salomy.D (2020C45)

Ms. Vishalini.R (2020C48)

Ms. Vishva Praba.R.S (2020C49)

Ms. Yashini.R (2020C50)

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

BACHELOR OF SCIENCE

In

CHEMISTRY

UNDER THE GUIDANCE OF

Dr. J.JONE CELESTINA



FATIMA COLLEGE (AUTONOMOUS)

Re-Accredited with 'A++' Grade by NAAC (4th Cycle)

**College with Potential for Excellence (2004-2019)
74th Rank in India Ranking 2020 (NIRF) by MHRD
Mary Land, Madurai – 625018, Tamil Nadu**

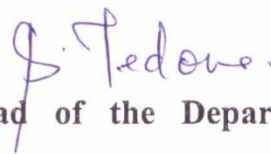
APRIL 2023

CERTIFICATE

This is to certify that a project entitled "Green chemistry used in everyday life" is a bonafide record of work done by D.Trinity Mary Salomy(2020C45), R.Vishalini(2020C48), R.S.Vishva Praba(2020C49), R.Yashini(2020C50) (chemistry) students of Fatima College, Madurai during VI semester of the academic year 2022-2023 under our guidance.



Internal Guide



Head of the Department

Dr. J.JONE CELESTINA,

Assistant Professor,

Department of Chemistry,

Fatima College,

Madurai – 625018.

Dr. B.Medona,

Head and associate Professor,

Department of Chemistry,

Fatima College,

Madurai – 625018.

DECLARATION

We do hereby declare that this dissertation entitled "**GREEN PRACTICES IN LABORATORY**" submitted to Madurai Kamaraj University In partial fulfillment of requirement for the award of **BACHELOR OF SCIENCE IN CHEMISTRY** is a record of original research work done by us. We also declare that this dissertation or part of work has not been published earlier elsewhere in any manner.

Trinity Mary Salomy .D

Trinity Mary Salomy.D (2020C45),

Vishalini. R

Vishalini.R (2020C48),

Vishva Praba R.S.

Vishva Praba.R.S. (2020C49),

Yashini. R

Yashini.R. (2020C50).

ACKNOWLEDGEMENT

First and foremost we would like to thank the Lord Almighty who has showered His wonderful blessings on us and helped us to carry our project toward success.

We express our sincere thanks to our principal **Dr. Sr. G. Celine Sahaya Mary** and our beloved Secretary **Dr. M. Francisca Flora** for the liberty they have given us to complete the project.

We express our sincere sense of gratitude to **Dr. B. Medona**, Head of the Department who supported us morally and provided us with all the necessary facilities in the laboratory to complete our project.

We convey our gratitude to our project guide **Dr. J. Jone Celestina**, for her constant support and immense support and guidance throughout the journey.

Finally we would like to thank each and every person responsible for the project to complete successfully.

We acknowledge project fund received under DST CURIE core Grant for Women
PG College DST/CURIE-PG/2022/11