



JAMAL MOHAMED COLLEGE (AUTONOMOUS)

(Affiliated to Bharathidasan University)

TIRUCHIRAPPALLI – 620 020

NAAC - SSR IV CYCLE

Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

Problem-Solving Methodologies



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(2021-2022)

Department of Computer Science & IT Students participate in the Intra Departmental Online Quiz Competition on 04.04.2022



The Intra departmental online Quiz competition conducted on 04.04.2022 at IT Lab-6



Forty Four under graduate & Post graduate students attended quiz competition

The Quiz Competition conducted for Students by Computer Science & IT Department
On 07-04-2022



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KIWZ (QUIZ) at 16th May of 2022



KIWZ (QUIZ)



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“An Intercollegiate Chem-Fiesta 2022”

On 15.03.2022 organized by

Department of Chemistry



Student Participate in the Problem Solving Skill Event

Organic Cosmo (Without using Chemical in Cosmetics)



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“An Intercollegiate Chem-Fiesta 2022”

On 16.03.2022 organized by

Department of Chemistry



Students showing their talents in the events

Brain Strom and Pen Trackzz





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DEPARTMENT OF CHEMISTRY

SOURCE APPORTIONMENT AND SEASONAL VARIATION OF PARTICULATE MATTER (PM_{2.5}) IN A TROPICAL CITY, TIRUCHIRAPPALLI

A dissertation Submitted to
JAMAL MOHAMED COLLEGE (Autonomous)

Affiliated to the
BHARATHIDASAN UNIVERSITY, TIRUCHIRAPPALLI-620 020

In partial fulfilment of the requirements
for the award of the Degree of

MASTER OF SCIENCE IN CHEMISTRY

Submitted by
N. Mohamed Asik
Reg No: 20PCH015

Under the guidance of
Dr. M. MOHAMED SIHABUDEEN



Since 1951

PG & RESEARCH DEPARTMENT OF CHEMISTRY
JAMAL MOHAMED COLLEGE (Autonomous)

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Tiruchirappalli- 620 020

May – 2022



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DEPARTMENT OF BIOTECHNOLOGY

*Anti-inflammatory Activity of *Ocimum tenuiflorum* L. Leaf Extract
Loaded Chitosan Nanoparticle as
a Drug Carrier – An *In Vitro* Study*

Dissertation submitted to

JAMAL MOHAMED COLLEGE (AUTONOMOUS)

In Partial Fulfillment of the Requirements for the award of the Degree of
MASTER OF SCIENCE IN BIOTECHNOLOGY

By

P. GOMATHI

Reg. No. 20PBT004

Under the Guidance of

Dr. J. SEBASTIN RAJ, M.Sc., Ph.D.,

Assistant Professor & Member In-charge



PG AND RESEARCH DEPARTMENT OF BIOTECHNOLOGY
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Tiruchirappalli 620 020

June 2022



JAMAL MOHAMED COLLEGE (AUTONOMOUS)

(Affiliated to Bharathidasan University)

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(Affiliated to Bharathidasan University)
TIRUCHIRAPPALLI- 620020

Date: 16.06.2022

CERTIFICATE

This is to certify that the dissertation, entitled "**Anti-inflammatory activity of *Ocimum tenuiflorum* L. leaf extract loaded Chitosan Nanoparticle as a drug carrier - An *In vitro* study**" submitted to Jamal Mohamed College, Tiruchirappalli, for the award of the degree of Master of Science in Biotechnology, is a record of the research work carried out by **Ms. P. Gomathi (Reg. No. 20PBT004)** during the period **2021-2022** of her study in the PG and Research Department of Biotechnology, Jamal Mohamed College (Autonomous), under the guidance and supervision of **Dr. J. Sebastin Raj, M.Sc., Ph.D., Assistant Professor and Member In-charge**, PG and Research Department of Biotechnology, Jamal Mohamed College (Autonomous), Tiruchirappalli, Tamil Nadu – 620 020. The dissertation has not formed the basis for the award of any Degree/ Diploma/ Associateship/ Fellowship or other similar title to any candidate of any University.

Signature of the guide

Dr. J. SEBASTIN RAJ, M.Sc., Ph.D.
Asst. Prof & Member in Charge
Dept. of Biotechnology
Jamal Mohamed College (Autonomous)
Tiruchirappalli - 620020

Head of the Department
Department of Biotechnology
Jamal Mohamed College
Tiruchirappalli-620 020



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Antidiabetic Activity of Quercetin Loaded Nanocellulose as
a Drug Carrier – An *In Vitro* Study

Dissertation submitted to
JAMAL MOHAMED COLLEGE (AUTONOMOUS)
In Partial Fulfillment of the Requirements for the award of the Degree of
MASTER OF SCIENCE IN BIOTECHNOLOGY

By

S. Sulthana Afreen

Reg. No 20PBT013

Under the Guidance of

Dr. T. Nargis Begum M.Sc., Ph.D.

Assistant Professor



PG AND RESEARCH DEPARTMENT OF BIOTECHNOLOGY

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JUNE 2022



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FIST Funded (Affiliated to Bharathidasan
University) TIRUCHIRAPPALLI-620020

Date: 16/06/2022

CERTIFICATE

This is to certify that the dissertation, entitled "Antidiabetic Activity of Quercetin Loaded Nanocellulose as a Drug Carrier – An In Vitro Study " submitted to Jamal Mohamed College, Tiruchirappalli, for the award of the degree of Master of Science in Biotechnology, is a record of the research work carried out by **Ms. S. Sulthana Afrein (Reg. No. 20PBT013)** during the period **2021-2022** of her study in the PG and Research Department of Biotechnology, Jamal Mohamed College (Autonomous), under the guidance and supervision of **Dr. T. Nargis Begum, M.Sc., Ph.D., Assistant Professor**, PG and Research Department of Biotechnology, Jamal Mohamed College (Autonomous), Tiruchirappalli, Tamil Nadu – 620 020. The dissertation has not formed the basis for the award of any Degree/ Diploma/ Associateship/ Fellowship or other similar title to any candidate of any university.

T. Nargis Begum
Signature of the guide

[Signature]
Head of the Department
Department of Biotechnology
Jamal Mohamed College
Tiruchirappalli-620 020



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**PREPARATION OF CATHARANTHUS ROSEUS LEAF EXTRACT
LOADED CHITOSAN NANOPARTICLE AS A DRUG CARRIER – AN
INVITRO STUDY**

**Dissertation submitted to
JAMAL MOHAMED COLLEGE (AUTONOMOUS)
In Partial Fulfillment of the Requirements for the award of the Degree of
MASTER OF SCIENCE IN BIOTECHNOLOGY**

**By
K. AYISHA BANU
Reg. No. 20PBT015**

**Under the Guidance of
Dr. T. NARGIS BEGUM, M.SC., M.PHIL., Ph.D.,
Assistant Professor**



**PG AND RESEARCH DEPARTMENT OF BIOTECHNOLOGY
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(Affiliated to Bharathidasan University)
Tiruchirappalli –620 020
June 2022**



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**PHYTOCHEMICAL SCREENING AND ANTIOXIDANT ACTIVITY
OF CHRYSOPOGON ZIZANIOIDES-AN IN VITRO STUDY**

Dissertation submitted to
JAMAL MOHAMED COLLEGE (AUTONOMOUS)
In Partial Fulfillment of the Requirements for the award of the Degree of
MASTER OF SCIENCE IN BIOTECHNOLOGY

By

S. DEVI BHARATHI

Reg. No 20PBT002

Under the Guidance of

Dr. T. Nargis Begum M.Sc., Ph.D.,

Assistant Professor



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Tiruchirappalli – 620020

JUNE 2022



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University) TIRUCHIRAPPALLI-620020

Date: 16/06/2022

CERTIFICATE

This is to certify that the dissertation, entitled "**Phytochemical Screening And Antioxidant Activity Of Chrysopogon zizanioides-An In Vitro Study**" submitted to Jamal Mohamed College, Tiruchirappalli, for by **Ms. S. Devi bharathi (Reg. No. 20PBT002)** during the period **2021-2022** of her study in the PG and Research Department of Biotechnology, Jamal Mohamed College (Autonomous), under the guidance and supervision of **Dr. T. Nargis Begum, M.Sc., Ph.D., Assistant professor**, PG and Research Department of Biotechnology, Jamal Mohamed College (Autonomous), Tiruchirappalli, Tamil Nadu – 620 020. The dissertation has not formed the basis for the award of any Degree/ Diploma/ Associateship/ Fellowship or other similar title to any candidate of any university.

S. Nandhy 16/6/2022
Signature of the guide

A. L. S. J.
Head of the Department

Department of Biotechnology
Jamal Mohamed College
Tiruchirappalli-620 020



Criterion II – Teaching-Learning and Evaluation

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DEPARTMENT OF BOTANY

Department of Botany

1) Title of the Project Influence of fermented plant products on growth rate of an ornamental plant, *Philodendron (Philodendron erubescens)* under hydroponic condition

Name of the Mentor : Dr.A.Shajahan

Leslie Jones. A (Reg No: 19UBO001)
Abdul Kalam. S (Reg No: 19UBO002)
Sirajuddeen. S (Reg No: 19UBO003)
Ahamed Riyaz. A (Reg No: 19UBO004)

Abstract: Vertical gardening using hydroponics is a new technology of science which has greater commercial importance during recent days. They provide aesthetic effect and maximum utilization of space in crowded urban places. However, cost of production is very expensive due to the higher cost of readymade nutrient solution available in the market. In literature, studies to reduce the cost of production of vertical gardening are very limited. Therefore, the present study was conducted to reduce the cost of production of vertical gardening by recycling fermented plant products as the alternative for commercial nutrients solution. This study was conducted to determine the influence of fermented plant on the growth rate of *Philodendron (Philodendron erubescens)* under hydroponic condition. The results showed that the leaf parameters viz, and root parameters viz, exerted optimum in those *Philodendron erubescens* grown in hydroponic condition with fermented banana peel extract followed by the same condition with fermented Aloe vera extract. Minimum growth rate was recorded in hydroponic condition with lemon peel extract.

2) Title of the Project: Metrics For Studying 'Carbon Banking' Potential Of Trees In Jamal Mohamed College Campus

Name of the Mentor: Dr. A. Aslam

A.K.Arun Prasath (19UBO009)
A.Mohamed Shahith (19UBO010)
K.E.Cheran (19UBO011)
M.S.Azeez Zullah (19UBO012)

Abstract: Carbon sequestration potential is known to be stable and consistent for tree species. Educational institutions are best place for growing avenue trees. Irrespective of the economic use of a tree species, being woody, they act as sink for atmospheric carbon. The wooded area is considered as a measure of the amount of fixed carbon in the past by that individual tree. In this regard, a common survey for all avenue trees of Jamal Mohamed College campus was carried out in order to estimate the wooded area as an estimate of carbon banking potential.



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3) Title of the Project: Cultivation of Oyster Mushroom and Preparation of Mushroom Cookies

Name of the Mentor Dr. K.Mohamed Rafi

P.Devakar (19UBO013)
R.Jegan (19UBO014)
Gokul Kumar (19UBO015)
Gowtham (19UBO016)
S.Gunalan (19UBO017)

Abstract: Edible mushrooms are rich in protein, minerals, vitamins other nutritive compounds. Mushroom in cookies helps improve cookies quality alongside fulfil nutrition demand. Cookies are a food for all sections of the people across the broad varieties and shape. This work aimed at preparation of cookies produced from wheat flour fortified with mushroom (*Pleurotus ostreatus*) and spiced with cardamom. Mushrooms are high in protein, carbohydrate, vitamins and fibre but low in fat, rich in vitamins. Wheat flour and mushroom powder taken in the ratio of 5:1. After analysis it has been found that mushroom fortified cookies have high protein content, low fat content, high fibre, minerals and vitamin content which will be

4) Title of the Project :Isolation and Identification of fungi from waste vegetables collected from Gandhi market, Tiruchirappalli.

Name of the Mentor Dr. N.Ahmed Sherif

M.Jagatheesh (19UBO019)
R.Jernald Shine (19UBO021)
J.Divakar (19UB018)
R.Jeno Antony (19UBO020)

Abstract: Vegetables are essential food products which are widely used. The contamination of vegetables by fungi could also result from poor handling practices in the food supply chain, storage conditions, distribution, marketing practices, and transportation. The identification of fungal strain which is responsible for the rotting of a particular vegetable is useful for the production biocontrol agent. Here, twelve vegetables were taken for the study and inoculated in PDA medium at the period of 5-7 days and identified the fungal strains. Totally seven genera of fungi were identified in twelve vegetable.



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5) Title of the Project: Developing the value added health drink from capillary water of Banana Central Core Stem for Urinary Problems (PHASE I)

Name of the Mentor : Dr. B.Balaguru

Mohamed Hassan S (19UBO026)

Mohamed Sabiyulla B (19UBO028)

Loganathan V (19UBO025)

Karthick M 19UBO024)

Mohamed Ussain M (19UBO029)

Abstract: In India, more than 20 commercial varieties of different genomic groups of *Musa acuminata* and *M. balbisiana* of *Musa paradisiaca* L. (banana) are cultivated which include Grand Nain, Robusta, Dwarf Cavendish, Red Banana, Rasthali, Poovan (Mysore), Nendran (French Plantain), Virupakshi (Hill Banana), Monthan, Ney poovan, Karpuravalli and Chakia. *Banana central core stem juice* is extracted from the central core stem, which is having property of dissolving kidney stone. Central core of banana central core stem contains about 1.2 % carbohydrate, 0.3 % protein, 0.7% fibre, minerals such as calcium, iron, magnesium and phosphorous in substantial quantities. It is well known that either crushed juice of central core stem or cooked central core stem have taken as medicine for urinary tract problems. Now a day's preference consumption of central core stem is in decreasing trend due to its high fiber content, astringent, bitter taste, and colloidal nature. Hence instead Pseudo stem extract, the Capillary water of banana central core could serve for this purpose. It has less chemical composition compare to the pseudo stem extract and watery nature that traditionally used by the people of Tamil Nadu and Kerala for urinary problem. For developing products, it is essential evaluate the mineral content of this capillary water. For developing products, it is essential to test the changes in microbial and biochemical composition and shelf life of the capillary water. Phase I of this proposed study aims to identify the knowledge on the nutritive value and medicinal uses of Banana plant and to analysis some of the biochemical constituents in the banana central core stem capillary water using ICP-OES instrument. The results of this project revealed that people are knowledge on the medicinal uses of banana but they are not consuming much due to several reasons. Also the capillary water analysed in the study showed that it has more chemical constitutes when compare to the central core stem juice and central core stem. Also aseptic way to collection has to be standardized because the water has the fungal and bacterial growth, which has to be standardized before commercialization. The commercialize product will give additional revenue to banana farmers and entrepreneurs.



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6) Title of the Project: Applications of Table salt and Vinegar on Green gram and Cowpea Sprout Growth

Name of the Mentor: Dr. R. Radhakrishnan

Mohamed Nowfil (19UBO030)
M. Mohammed Majith (19UBO031)
R.Mukilam (19UBO032)
A.Najubudeen (19UBO033)
M.Prabakaran (19UBO034)

Abstract: Sprouts contains rice amount of nutrients and antioxidants. In this study was aimed to identify the suitable concentration of table salt and vinegar for green gram and cowpea sprouts growth. The different concentrations of table salt (0.1%, 0.2%, 0.3% and 0.4% of NaCl) and vinegar (1.0%, 3.0%, 5.0% and 7.0% of vinegar) were applied on green gram and cowpea seeds. Among these, 0.4% of NaCl and 5.0% of vinegar treated seedlings was significantly enhanced the length, fresh and dry weight of green gram and cowpea along with increased amount of antioxidants. In this study suggested that the application of low concentration of NaCl (0.1%) and vinegar (5.0%) on green gram and cowpea would be useful to enhance the health beneficial contents in their sprout.

7) Title of the Project: Morphological and anatomical modification of *Macrotyloma uniflorum* (Lam). Under Boron Deficiency

Name of the Mentor: Dr. R. Sathish kumar

S. Ragunath (19UBO035)
G.R. Sathyamoorthy (19UBO036)
K.Subahani (19UBO037)
R.Surya (19UBO038)
Zunaid U (19UBO040)

Abstract: Boron (B) is a structural component of plant cell wall and B deficiency causes disruption in development of plants. In this work, influence of low B supply on plants morphology and anatomy studies were conducted on *Macrotyloma uniflorum*. Boron deficiency symptoms were observed in this species including anatomical and morphological observation of the plant. Microscopic examination taken to discuss the detailed anatomical properties and changes due to boron deficiency. Anatomical alterations due to Boron deficiency observed in the leaf blades followed by the petiole, stem and roots. Our results revealed that, there are many remarkable disruptions horse gram due to boron deficiency.



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DEPARTMENT OF COMMERCE

A STUDY ON DIGITAL SHOPPERS' SATISFACTION TOWARDS E-TAILERS WITH REFERENCE TO THENI CITY

A project submitted to the
JAMAL MOHAMED COLLEGE (Autonomous)
TIRUCHIRAPPALLI-620 020

Affiliated to Bharathidasan University, Tiruchirappalli in
partial fulfillment of the requirements for the Award of the
Degree of

MASTER OF COMMERCE

Submitted by
K. NOOR FAZIL
(Register No: 20PCO028)

Under the Guidance of
Dr. G. PASUPATHI., M.Com.,MBA.,M.Phil., SLET., Ph.D.,
Assistant Professor of Commerce



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JUNE-2022



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**A STUDY ON CONSUMER PREFERENCE ON HEALTH DRINKS IN
TRICHY CITY**

Project report submitted to the
JAMAL MOHAMED COLLEGE (Autonomous)
Affiliated to Bharathidasan University, Tiruchirappalli
in partial fulfillment of the requirements
for the award of the Degree of

MASTER OF COMMERCE

By
MOHAMMED GANI .M
(Reg. No: 20PCO024)

Under the Guidance of
Dr. Y. RAZEETH KHAN
M.Com., M.B.A., M.Phil., Ph.D.,
Assistant Professor of Commerce



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JUNE 2022



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**A STUDY ON ATTITUDE AND WORK COMMITMENT OF TEACHERS TOWARDS
ONLINE TEACHING IN TRICHIRAPPALLI CITY**

A project report submitted to the

JAMAL MOHAMED COLLEGE (Autonomous)

TIRUCHIRAPPALLI – 620 020

Affiliated to Bharathidasan university, Tiruchirappalli in partial fulfilment of
the requirements for the Award of the Degree of

MASTER OF COMMERCE

Submitted by
A.S. MAHESH SANTHAMOORTHY
(Register No: 20PCO011)

Under the Guidance of
Dr. N. MOHAMED SIDDIQ
M Com., M.Phil., MBA, CMA (Inter), B.Ed., SET., Ph.D.
Assistant Professor



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**A STUDY ON JOB SATISFACTION OF WORK FROM HOME
OMEGA HEALTH CARE TIRUCHIRAPPALLI CITY**

Project Report submitted to the
JAMAL MOHAMED COLLEGE (Autonomous)
Affiliated to the **Bharathidasan University**,
Tiruchirappalli in partial fulfilment of the
requirements

for the award of the Degree of
MASTER OF COMMERCE

By

M. LOGESH
(Reg. No: 20PC0010)
Under the Guidance of

Dr. Y. RAZEETH KHAN
M.Com., M.B.A., M.Phil., Ph.D.
Assistant Professor in Commerce



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JUNE – 2022



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(Affiliated to Bharathidasan University)

TIRUCHIRAPPALLI – 620 020

NAAC - SSR IV CYCLE

Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

**“A COMPARATIVE STUDY ON PAINTER’S PREFERENCES
AND PERCEPTION OF ASIAN PAINTS AND DULUX PAINTS
BRANDS”**

Project report submitted to the
JAMAL MOHAMED COLLEGE (Autonomous)
Affiliated to Bharathidasan University, Tiruchirappalli

in partial fulfillment of the requirements
for the award of the Degree of

MASTER OF COMMERCE

By

AHAMED NAUFAL.S

(Reg. No: 20PCO003)

Under the Guidance of

Dr. M. SIRAJUDEEN

M.Com., M.Phil., M.B.A., M.Phil., Ph.D., PGDCA., DCHT., MA(Eng.), SET., NET

Assistant Professor of Commerce



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POST GRADUATE & RESEARCH DEPARTMENT OF COMMERCE

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JUNE 2022



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Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

**“A STUDY ON CONSUMER PREFERENCES OF
SOFT DRINKS IN NAGAPATTINAM CITY”**

Project report submitted to the

JAMAL MOHAMED COLLEGE (Autonomous)

Affiliated to **Bharathidasan University**, Tiruchirappalli

in partial fulfillment of the requirements

for the award of the Degree of

MASTER OF COMMERCE

By

A.ABDUL MALIK WALAZEEZ

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**A STUDY ON BRAND PREFERENCE AND PERCEPTION OF AIR
CONDITIONER USERS IN TIRUCHIRAPPALLI CITY**

A Project Report submitted to the
JAMAL MOHAMED COLLEGE (Autonomous)
Affiliated to Bharathidasan University, Tiruchirappalli

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

MASTER OF COMMERCE
Submitted By

N.ABDUL ABISHEIK
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M.Com., M.Phil, MBA., B.Ed., Ph.D (NET)
ASSISTANT PROFESSOR OF COMMERCE



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DEPARTMENT OF CHEMISTRY

Department of Chemistry

1) Title of the Project: A Study of the factors affecting the foaming capacities of different detergent soap

Name of the Mentor: Dr. M. Mohamed Sihabudeen

Abdul Basheeth. P. S	(19UCH001)
Abdul Hadhi. A	(19UCH002)
Abdul Kalam Asath. M	(19UCH003)
Abdul Rahman. J	(19UCH004)
Abdul Wahith. M	(19UCH005)
Abdulla. M	(19UCH006)

Abstract: Foaming capacity of soap is maximum in distilled water as compared to that in tap water. The soap for which the time taken for the disappearance of foam is highest has maximum foaming capacity and is the best quality soap among the soaps tested. The foaming capacity and hence the cleansing capacity of different samples of soaps is in the order Sample C > Sample B > Sample D > Sample E > Sample A from this experiment, we can infer that SAMPLE C has the highest foaming capacity, in other words, highest cleaning capacity. On the other hand is found to have taken the least amount of time for the disappearance of foam produced and thus SAMPLE A is said to be having the least foaming capacity and cleansing capacity.

2) Title of the Project : Analysis and comparative study of permissible of chemical in the easily accessible drugs

Name of the Mentor: Dr. M. Seeni Mubarak

Mohamed Nowfal A	(19UCH055)
Mohamed Rabik S	(19UCH056)
Mohamed Riyash R	(19UCH057)
Mohamed Sheik	(19UCH058)
Alavudeen B	
Mohamed Umar A M S	(19UCH059)
Divin S	(19UCH060)

Abstract: Acetaminophen otherwise known as Paracetamol, is a widely used nonprescription analgesic and antipyretic medication for mild-to-moderate pain and fever. Harmless at low doses,



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paracetamol has direct hepatotoxic potential when taken as an overdose and can cause acute liver injury and death from acute liver failure. Even in therapeutic doses, paracetamol can cause transient serum aminotransferase elevations. However the contamination levels of chemicals using spectrometry the intensity of absorbance for commercial medical sample paracetamol is measured and Beer's law is obeyed in the concentration range of 10-180Mg of paracetamol in final volume of 25ml.

3) Title of the Project: Transesterification reaction and comparative study of the fuel properties of biodiesels produced from used cooking oil.

Name of the Mentor: Dr. A. Jafar Ahamed

Mohamed Yasir A	(19UCH061)
Mohammad Sulaiman M	(19UCH062)
Mohammed Imthiyas	(19UCH063)
Aslam S ohammeddhanseer B	(19UCH064)
Muhammad A S	(19UCH065)
Mukesh A	(19UCH066)

Abstract: Biomass, of animal or plant origin, has been a highly sought-after energy resource for centuries. Like bio ethanol, biodiesel is a fuel produced from biomass and mainly vegetable oils or animal fats. The production of these fuels helps to reduce greenhouse gases and stimulate the local economy. This bibliographic synthesis constitutes a scientific contribution to the production of quality biodiesel, produced locally and more profitable. To do this, we consulted and synthesized the recent information available. Comparisons were also made. At the end of this research, it appears that biodiesel is generally produced by transesterification, inter esterification, micro emulsification or pyrolysis in order to approximate its characteristics to those of petrodiesel. Transesterification is the most widely used because of its low cost, simplicity, best yields and the quality of the biodiesel obtained. To optimize biodiesel production in this way, operating parameters must be controlled. These are: the type and concentrations of alcohol and catalyst used, the temperature and reaction time, the water content of the alcohol and vegetable oil, the free fatty acid content of the oil and the agitation rate of the reaction medium. The use of distilled water for purification, thin layer chromatography for the quantification of ethyl esters and a probable substitution of the base by a solution of ash from palm nut residues or cotton seeds, would be an asset to limit economic burdens and encourage local production.



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4) Title of the Project : Determination of different qualities of milk samples available in the market.

Name of the Mentor: Dr. M. Syed Ali Padusha

Abdullah. R (19UCH007)

Adnan Fawaz. K (19UCH008)

Ajay Sriram. R (19UCH009)

Aminudeen. B (19UCH010)

Anvardeen. N (19UCH011)

Aravind. K (19UCH012)

Abstract: The present study was carried out for quality and safety assessment of cow milk samples was collected. The milk samples were collected from dairy shops, vendors and milk producers and evaluated on the basis of various analysis tests, physical-chemical properties, proximate estimation and chemical studies following the standard procedures. The variation in the concentration of different components found in milk depends on mammalian species, genetic, physiological, nutritional factors, and environmental conditions. Here, we analyze, for the first time, the content of different components in milk of different brands. The high quality milk should have better density and is free from the adulterants. Milk is most commercially sold commodity both by local vendor's as well super markets. However in local areas to increase the yield certain adulterants are added which may affect the nutritional quality of milk. Milk adulteration is a social problem. It exists both in the backward and advanced countries. Consumption of adulterated milk causes serious health problems and a great concern to the food industry. The Country milk producers and consumers facing problem to find the quality of milk, accept the fair of price and consumption. So it is necessary to ensure the quality of milk by measuring type and amount of adulterants that are added to the milk. This is performed by using combined electronic sensory instrumental system such as p H electrodes. The different quality parameters such as colour, density, pH, adulterates and chemical content are also noted. Food safety and food security are very much at the top of the agenda in India, so it is of utmost importance to screen the quality of milk and milk products in the market for avoidance of skimming practices and/or adulteration of milk with water and human health problems



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5) Title of the Project : Detection of contamination level of chemicals in easily accessible drugs

Name of the Mentor: Dr. A. Jamal Abdul Nasser

Arshadh Faheem. A	(19UCH013)
Arunchithresh. S	(19UCH014)
Arunkumar. V	(19UCH015)
Ashik. S	(19UCH016)
Asker Ahamed. K	(19UCH017)
Azhagarsamy. G	(19UCH018)

Abstract: Biomass, of animal or plant origin, has been a highly sought-after energy resource for centuries. Like bio ethanol, biodiesel is a fuel produced from biomass and mainly vegetable oils or animal fats. The production of these fuels helps to reduce greenhouse gases and stimulate the local economy. This bibliographic synthesis constitutes a scientific contribution to the production of quality biodiesel, produced locally and more profitable. To do this, we consulted and synthesized the recent information available. Comparisons were also made. At the end of this research, it appears that biodiesel is generally produced by transesterification, inter esterification, micro emulsification or pyrolysis in order to approximate its characteristics to those of petrodiesel. Transesterification is the most widely used because of its low cost, simplicity, best yields and the quality of the biodiesel obtained. To optimize biodiesel production in this way, operating parameters must be controlled. These are: the type and concentrations of alcohol and catalyst used, the temperature and reaction time, the water content of the alcohol and vegetable oil, the free fatty acid content of the oil and the agitation rate of the reaction medium. The use of distilled water for purification, thin layer chromatography for the quantification of ethyl esters and a probable substitution of the base by a solution of ash from palm nut residues or cotton seeds, would be an asset to limit economic burdens and encourage local production.



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6) Title of the Project : Assessment of various milk quality parameters

Name of the Mentor: Dr. A. Zahir Hussain

Dhanveerul Irfan.A.K	(19UCH019)
Dinesh Bani. S	(19UCH020)
Ejaas Mubarak. A	(19UCH021)
Elavarasan. S	(19UCH022)
Ghouse Tameem Baig. M. M	(19UCH023)
Gowtham. R	(19UCH024)

Abstract: In the present study, the four types of commercial milks such as Aavin, Arokya, society and Vijay milk are collected. All milk samples are subjected to preliminary physico – chemical analysis. Using standard procedure, starch, glucose, salt and urea were determined in all milk samples. Hence the preliminary study confirms all samples have mainly starch. Because starch is added as adulterant to reduce the excess amount fat in milk. Also all samples have glucose as an adulterant. Because, glucose gives milk a slight sweet taste and it is primary source of energy. And also a little amount of urea is naturally present in all milk. The reason is mammals like cow etc... are mainly took grass and dumping wastes as their diet, so urea is naturally occurred on their breeder milk. All these samples had some adulterants to balancing and increasing physico chemical properties of milk. Thus these samples were assessed by qualitative analysis. Further this study has to determine quantitatively to measure the quantity of some adulterants in milk.

7) Title of the Project : Detection of food additives in packed foods; Presence of Caramel in food sample

Name of the Mentor: Dr. J. Sirajudeen

Hameed Ibrahim. A	(19UCH025)
Imran. H	(19UCH026)
Inbanathan. R	(19UCH027)
Jayakumar. S	(19UCH028)
Jeeva. K	(19UCH029)
Jeeva. S	(19UCH030)

Abstract: Food Additive means any substance not normally consumed as a food by itself and not normally used as a typical ingredient of the food, whether or not it has nutritive value, the intentional addition of which to food for a technological (including organoleptic) purpose in the manufacture, processing, preparation, treatment, packing, packaging transport or holding of such



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food results, or may be reasonably expected to result (directly or indirectly) in it or its by products becoming a component or otherwise affecting the characteristics of such foods. In food additives one of the products is used as food colours, in a packed food like Caramel. Caramel, defined as colouring agent and as an antioxidant, is being used in several kinds of food products. It has been classified into 4 classes to satisfy the requirement of several food and beverage systems. The variation in its consistency owing to its basic content of milk solids, sugars, and fat has been studied. Several methods have been found to estimate the amount of colour provided by caramel in food products.

8) Title of the Project : *In silico* ADME properties of phenolic acids of corn silk

Name of the Mentor: Dr. K. Loganathan

Karthick Raja. G	(19UCH031)
Karthik Bharathi. S	(19UCH032)
Karthikeyan. R	(19UCH033)
Kishore. P	(19UCH034)
Krishna Kumar. R	(19UCH035)
Krishnan. N. S	(19UCH036)

Abstract: The long shiny fibers at the top of an ear of corn are called corn silk. Corn silk is used as a medicine. It contains a number of phytochemical compounds - phenols, polyphenols, phenolic acids, flavonoids, flavone glycosides, anthocyanins, carotenoids, terpenoids, alkaloids, steroids, lutein, tannins, saponins, volatile oils, vitamins, some sugars, and polysaccharides. Corn silk is used for chest pain (angina), high blood pressure, preventing a group of eye disorders that can lead to vision loss (glaucoma), and many other conditions, but there is no much scientific evidences to support these uses. In order to understand the mechanism of the phenomenal effect, we tried to study ADME properties exclusively phenolic acids of corn silk by *In Silico* method adopting Swiss-ADME web tool. Physicochemical Properties like molecular weight, molecular refractivity, count of specific atom types and polar surface area, Lipophilicity (log Po/w), Pharmacokinetics, Drug-likeness, Bioavailability Score, Boiled-Egg are determined. The results obtained reveals that it may be treated as baseline data for further studies.



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9) Title of the Project : Detection of chemical additives in packed commercial Gingelly oil.

Name of the Mentor: Dr. M. Anwar Sathiq

Lakshmi Narayanan. B	(19UCH037)
Lalshikanther Basha. A. L	(19UCH038)
Madhan. A	(19UCH039)
Manikandan. P	(19UCH040)
Mohamed Abdullah Lebbai.	(19UCH041)
V. N	
Mohamed Abubackker	(19UCH042)
Sithick. A	

Abstract: In recent times, Gingelly oil is highly appreciated by consumers due to its sensory qualities, antioxidants activity and nutritional benefits, despite its high price. Also, the detection and quantification of adulteration both are problem with increasing importance in the consumer's health and food industry. The goal of this study was to spread attentiveness about the purity of gingelly oil. We purchased six popular brands of refined gingelly oil and to evaluating their purity by physical (colour and transparency) and chemical (acid value and saponification value) methods. Both qualitative and quantitative analysis of food adulterants is an important for health, wealth and economic issue that needs to be fast and simple. In the light of the statistical and experimental results, all the six brands are met out the minimum standard. Therefore, all are good for common consumption. So, apart from all the above discussion the conclusion was made that plant oils are good for consumption as it contains unsaturated fatty acids as well as plant oils are rich in phytosterol i.e. sistosterol, which lowers the cholesterol absorption in human beings. Keywords: Gingelly oil; Acid Value; Saponification value; Sistosterol

10) Title of the Project : Purity validation of acetaminophen in easily available drug samples

Name of the Mentor: Dr. M. Purushothaman

Mohamed Abulanser. M	(19UCH043)
Mohamed Anas. I	(19UCH044)
Mohamed Arif. A	(19UCH045)
Mohamed Arsath Parvees. P	(19UCH046)
Mohamed Ashik. M. P	(19UCH047)
Mohamed Asick. I	(19UCH048)

Abstract: HPLC methods were developed and validated for the estimation of SRT in the presence of its degradation products. LOD and LOQ reported by this method are comparable to the reported one in previous literatures. The most striking feature of the developed method is its simplicity, accuracy, and rapidity. The behavior of SRT under the hydrolytic stress conditions in acid, neutral,



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alkaline, and oxidative media was studied. The information presented herein could be very useful for quality monitoring of bulk substance as well as the pharmaceutical preparation

11) Title of the Project : Review on investigation of foaming capacity of different washing soap

Name of the Mentor Dr. K. Riaz Ahamed

Muruganantham S	(19UCH067)
Nandhakumar S	(19UCH068)
Sheik Abdullah H	(19UCH069)
Niyaz Ali	(19UCH070)
Parvesh Jubair K	(19UCH071)

Abstract: Aim is to investigate foaming capacity of different washing soap and effect of addition of sodium carbonate on them. Soaps and detergents are cleaning ingredients that are able to remove oil particles from surfaces because of their unique chemical properties. Soaps are created by the chemical reaction of a fatty acid with an alkali metal hydroxide. In a chemical sense soap is a salt made up of a carboxylic acid and an alkali like sodium or potassium. The cleaning action of soap and detergents is a result of their ability to surround oil particles on a surface and disperse it in water.

12) Title of the Project : Determination of quality of different samples of milk

Name of the Mentor: Dr. S. K. Periyasamy

Praveen S	(19UCH073)
Praveenkanth S	(19UCH074)
Prethiviraj V	(19UCH075)
Ragul N	(19UCH076)
Raja R	(19UCH077)
Rajkumar D	(19UCH078)

Abstract: Eight parameters were studied for four different brands of milk available in the market. It is found that all the parameters studied were within the permissible limit in all four samples. Presence of Chloride is found in two samples viz., VKA and Kossa. This study helps the consumer to understand the qualities of milk



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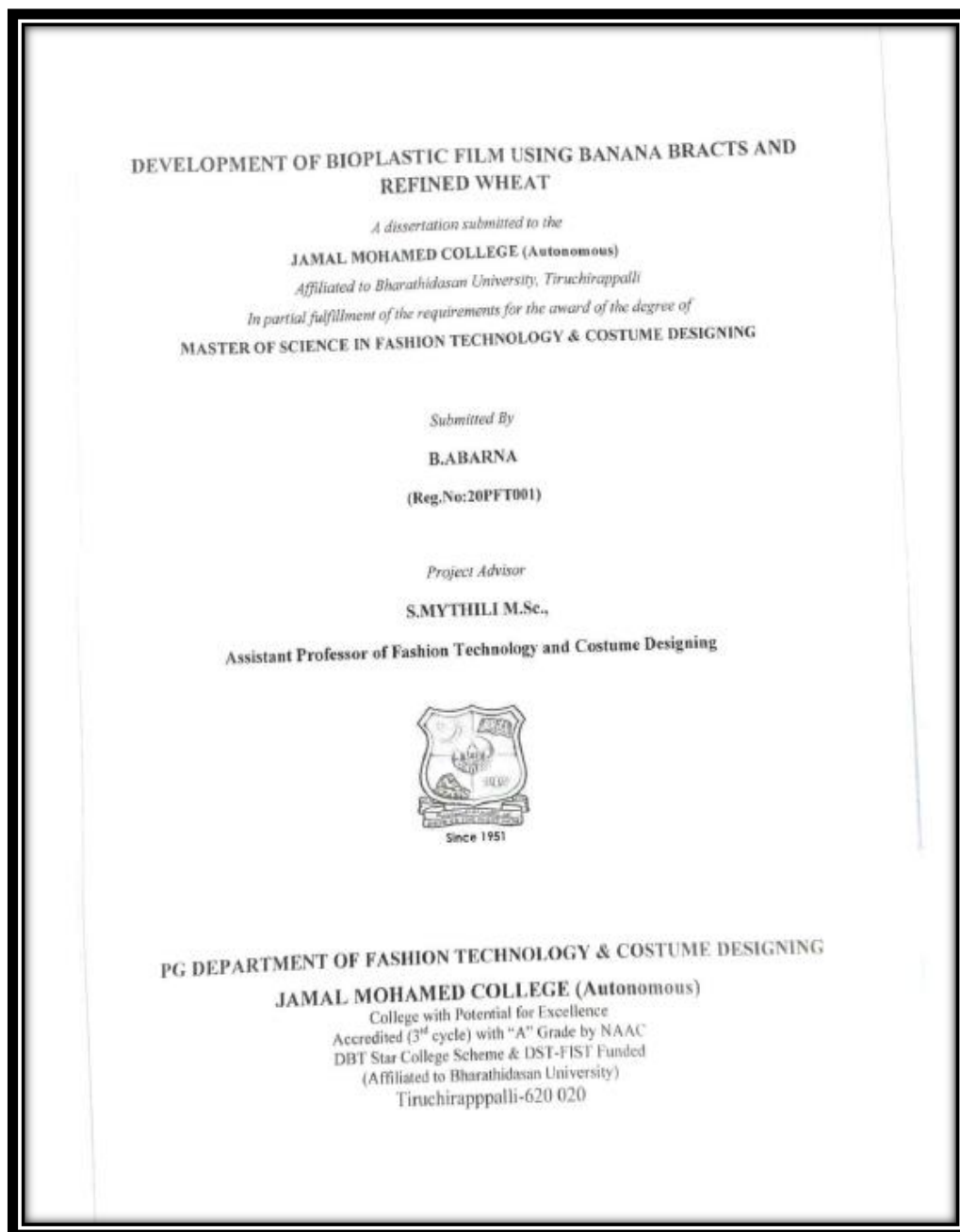
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DEPARTMENT OF FASHION TECHNOLOGY & COSTUME DESIGNING





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**DESIGN AND DEVELOPMENT OF FASHION GARMENTS EMBELLISHING
WITH PLASTIC WASTE**

A dissertation submitted to the JAMAL MOHAMED COLLEGE (Autonomous)

Affiliated to Bharathidasan University, Tiruchirappalli

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

MASTER OF SCIENCE IN FASHION TECHNOLOGY & COSTUME DESIGNING

Submitted By

R.RIFATH

(Reg.No: 20PFT002)

Project Advisor

T.NISAANTHY M.SC.,

Assistant Professor Of Fashion Technology And Costume Designing



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**FLOWER PETALS EXTRACTION – A
STUDY FOR NATURAL DYE'S**

A dissertation submitted to the
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DBT Star Scheme & DST-FIST Funded
Affiliated to Bharathidasan University, Tiruchirappalli
In partial fulfillment of the requirements for the award of the degree of
**MASTER OF SCIENCE IN FASHION TECHNOLOGY & COSTUME
DESIGNING**

Submitted By
SUMAYYA.A
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Project Advisor
MERLIN SHARMLG MSc., MPhil., PGDTT., NET., (PhD)
Assistant professor of Fashion Technology and costume designing



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DEVELOPMENT OF STOMACH BELT FOR MENSTRUAL PAIN
USING SESAME SEED (*Sesamum indicum*)
A dissertation submitted to the
JAMAL MOHAMED COLLEGE (AUTONOMOUS)
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DBT Star college Scheme & DST-FIST Funded
Affiliated to Bharathidasan University, Tiruchirappalli - 620 020.
In partial fulfillment of the requirements for the award of the degree of
MASTER OF SCIENCE IN FASHION TECHNOLOGY & COSTUME DESIGNING

Submitted By

J.S. SWETHA
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Project Advisor

B. JABEEN M.Sc.,
ASSISTANT PROFESSOR OF FASHION TECHNOLOGY AND COSTUME
DESIGNING



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DEPARTMENT OF NUTRITION & DIETETICS

**ANTIOXIDANT ACTIVITY AND NUTRIENT COMPOSITION OF THE
SELECTED MORINGA FLOWER POWDER (*MORINGA OLEIFERA*)
INCORPORATED INSTANT MIX**

A Project Work submitted to
JAMAL MOHAMED COLLEGE (AUTONOMOUS)

Affiliated to
BHARATHIDASAN UNIVERSITY, TIRUCHIRAPPALLI

In partial fulfillment of the requirements

For the award of the Degree of
MASTER OF SCIENCE IN NUTRITION AND DIETETICS

by

S. DEVASHRI

(Reg. No: 20PND007)

Under the guidance of

A.YASMIN FATHIMAA., M.Sc., M.Phil.



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June - 2022



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“USAGE OF ALUMINIUM COOKWARE AMONG (MALE & FEMALE) CONSUMERS AND DETERMINE THE PRESENCE OF ALUMINIUM IONS IN THE COOKED FOODS IN NEWLY PURCHASED ALUMINIUM COOKING UTENSILS IN A SAMAYAPURAM TAULK, AT TIRUCHIRAPPALLI DISTRICT”

A Project Work submitted to
JAMAL MOHAMED COLLEGE (AUTONOMOUS)
affiliated to
BHARATHIDASAN UNIVERSITY, TIRUCHIRAPPALLI
in partial fulfillment of the requirements
for the award of the Degree of
MASTER OF SCIENCE IN NUTRITION AND DIETETICS
by

FEMINA BEGUM A
(Reg.No: 20PND011)

Under the guidance of
B. RAJALAKSHMI M.Sc., M. Phil., (SET.,NET)



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May - 2022



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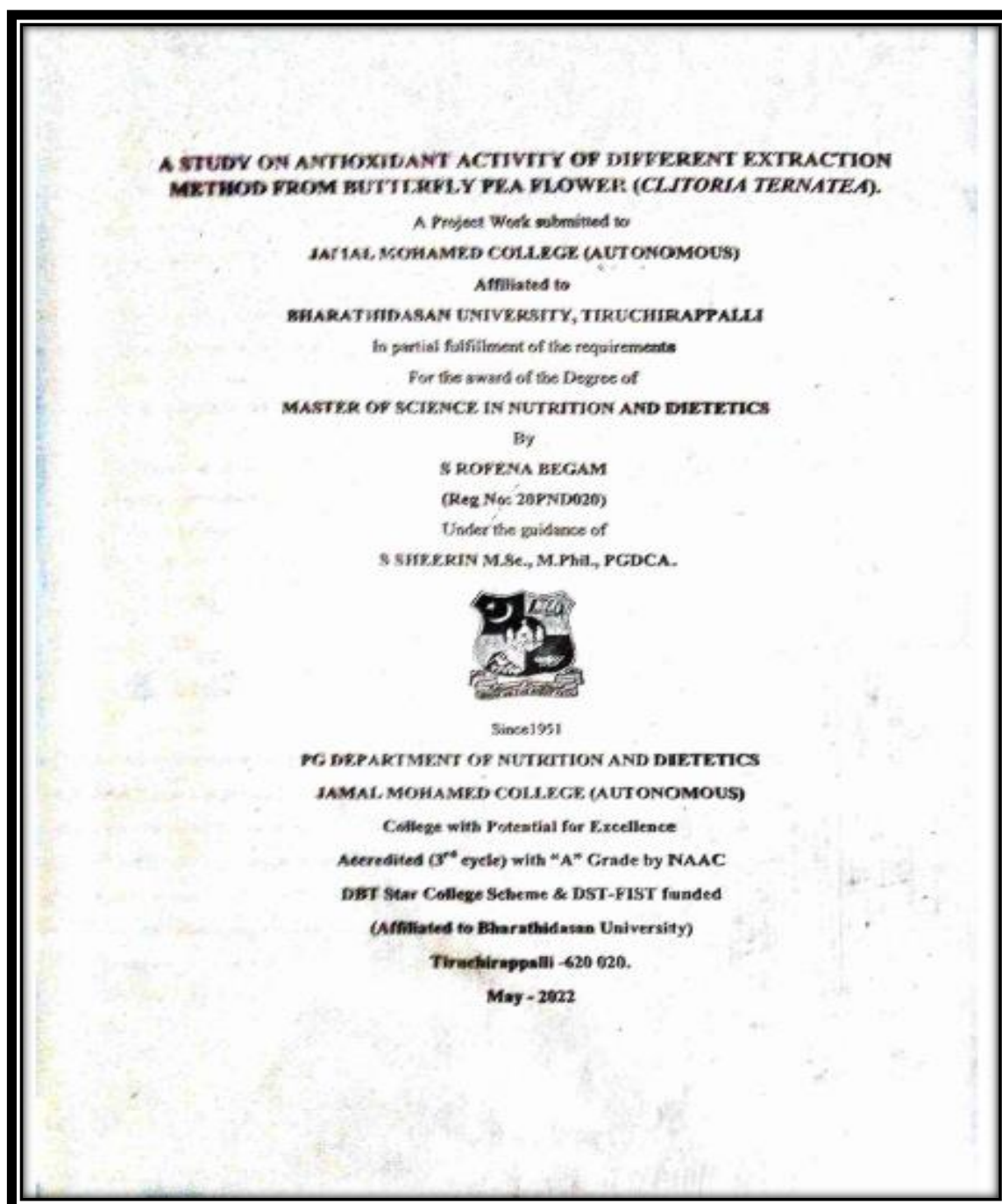
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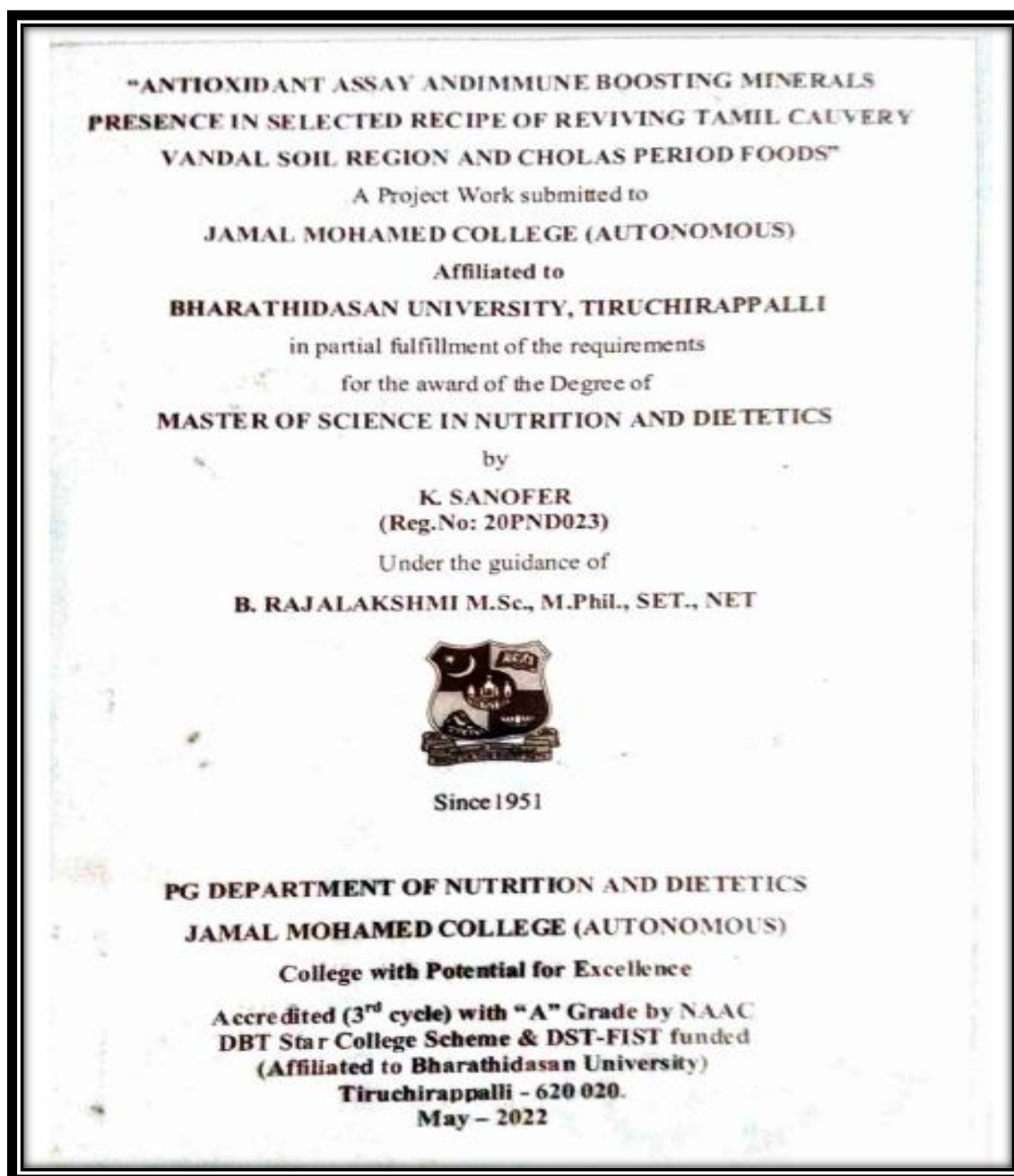
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Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

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BREAST CANCER CELL LINE STUDY OF *DRYNARIA QUERCIFOLIA* RHIZOME

A Project Work submitted to
JAMAL MOHAMED COLLEGE (Autonomous)
affiliated to
BHARATHIDASAN UNIVERSITY, TIRUCHIRAPPALLI
in partial fulfilment of the requirements
for the award of the Degree of
MASTER OF SCIENCE IN NUTRITION AND DIETETICS
by

N. SRINIDHI
(Reg.No: 20PND026)

Under the guidance of
J. HARINE SARGUNAM, M.Sc., M.Phil., NET



Since 1951

PG DEPARTMENT OF NUTRITION AND DIETETICS

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Soft Skill

JAMAL MOHAMED COLLEGE
(AUTONOMOUS)
Tiruchirappalli – 620 020

**SOFT SKILLS DEVELOPMENT
STUDENT'S WORKBOOK**

Declaration

I I. RAJENTHIRA PRASATH of
B.Sc. CHEMISTRY "A" with register number 81VCH044
declare that the contents of the work submitted for the external assessment of
Soft skills development course are my original work.

I. Raj 01/06/22
Signature of the student with date

I Dr. ZAHIR HUSSAIN the faculty of soft skills development,
ensure that the work submitted by the student is only meant for his/her personal
development. No part of this work is revealed without the consent of the student
and all confidentiality is maintained.

Place: _____
Date: _____

A. Zahir Hussain
Signature of the Staff Incharge



Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

UNIT-1 COMMUNICATION SKILLS

Exercise-1 Which place do you like the most and why? (2.5 marks)

- College
- School
- Home
- Any other place

Home

Reason(s):

* A Home is place that gives comfort to everyone. It is because a home is filled with love and life. Much like every lucky person, I also have a home and a loving family. Through my Home essay, I will take you through what my home is like and how much it means to me.

* My home is situated in the city. It is not too big nor small, just the perfect size. My family lives in the home. It comprises of my father, mother, sister and grandparents. We live in our ancestral home so my home is village.

2.D



Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

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UNIT-2 EMOTIONAL SKILLS

Exercise-5 Read the following situations and Write about your feelings at that moment. (3 Marks)

- a) Imagine that you are in a canteen. Your class teacher comes to the canteen to have a cup of tea with his colleague. You greet your teacher with a smile and say "Good morning sir/madam." Your class teacher does not look at you or respond to your greeting.

*. I feel sad because why should'n't he response to me did I do any worst thing or didn't he know me that I am is his student or he didn't noticed me.

- b) Imagine that you are working part-time at a Restaurant as a Server. When you approach a table or two in your restaurant, you notice one of the customers ordering very quickly often looks at his watch and seem to be hurried.

*. I consider that person who much hurry and I take his order fastly.



Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

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UNIT-3 FUNCTIONAL SKILLS

Exercise 9: Imagine a situation where you are going to college by vehicle. Suddenly, middle of nowhere your vehicle tire was punctured; you do have tools for repairing it. Write down the steps to repair the puncture with a real-time photograph. (2.5 marks)

First I considered the traveller and shift them into other vehicle than I enquire puncture repair shop. I take the triangle that to indicate person at work. I take the tools and put the hydraulic jack on side of the punctured tyre side. Then I unscrew the tyre and take the tyre to the puncture repair shop. After repairing the tyre replace it and screw it or I use the spare tyre and after it I go to the puncture shop.

2.5



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2.3 Teaching – Learning Process

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UNIT-4 INTERPERSONAL SKILLS

Exercise-13 Prepare a business proposal to start your own company. (2.5 marks)

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2.3 Teaching – Learning Process

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Exercise-12 You can do any of the social activities alone or in a group and take a photo and paste it here. Example:- Plant tree sampling. **(2.5 marks)**



2.5



Criterion II – Teaching-Learning and Evaluation

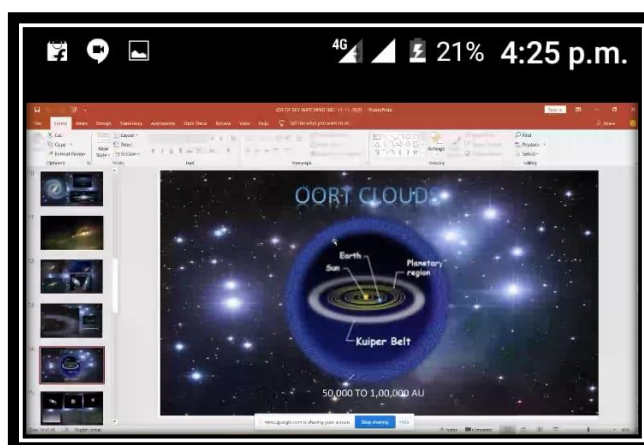
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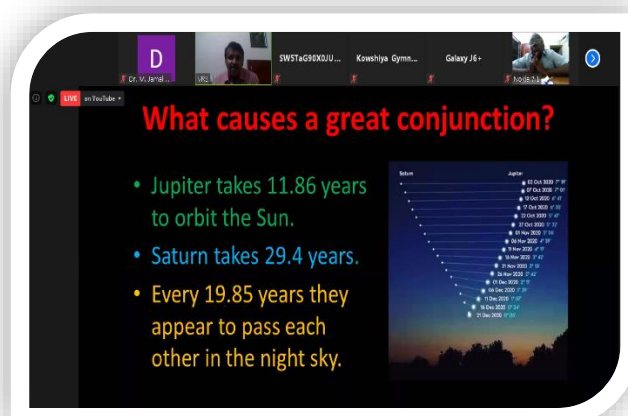
(2020-2021)

Department of Physics

Mr. G. Aazhimukilan, Trichy Astro Club, Tiruchirappalli delivering a special lecture on **The Great Conjunction of Jupiter and Saturn** through Google Meet platform on 19-12-2020



Mr. V. Rajasekar, Scientist, ISRO, Trivandrum delivering a special lecture on **The Great Conjunction of Jupiter and Saturn** through Google Meet platform on 20-12-2020.





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2.3 Teaching – Learning Process

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Students viewing “ **The great Conjunction of Jupiter and Saturn- An event after 397 years**” through the telescope on 21-12-2020.

A section of students during Sky Watch Programme on 09-03-2020



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**A section of Students viewing the Wellington and Comet during Sky-Watch Programme on
17-12-2021**



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Telecommunication Project by Department of Physics



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BHARAT SANCHAR NIGAM LIMITED

(A GOVERNMENT OF INDIA ENTERPRISE)

TRICHY TELECOM DISTRICT

BSN Learning

CERTIFICATE

This is to certify that Shri/Kum **M.ABDUL REHAMAAN** *.....*

a student of **JAMAL MOHAMED COLLEGE (Autonomous)** *.....*

..... **B.Sc / PHYSICS - II Year** *.....*

has undergone **Vocational Training on Telecom Technologies** *in our*
organization for 5 days from **08-11-2021** *to* **12-11-2021** *and*
completed the training successfully

Place : **Trichy**

Date : **12-11-2021**

Assistant General Manager
(Administration)
Office of PGM, BSNL, Trichy.



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Software Development Project by Department of Computer Applications

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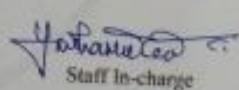
DEPARTMENT OF COMPUTER APPLICATIONS
BACHELOR OF COMPUTER APPLICATIONS
SEMESTER – VI
SOFTWARE DEVELOPMENT LAB
[20UCA6CC16P]

CERTIFICATE

Name : MOHAMED USAITH S.A.

Register Number : 19UCA011

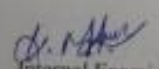
This is to certify that this is a bonafide record of practical work done in the Computer Centre of Jamal Mohamed College, Tiruchirappalli - 20 during the Year 2022 - 2023.


Staff in-charge

Submitted for the B.C.A Practical Examination held at Jamal Mohamed College, Tiruchirappalli - 20, on 28-03-2022

Tiruchirappalli - 20

Date : 28-03-2022


Internal Examiner


External Examiner



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Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

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**Software Development Lab
Students Attendance Monitoring Systems**

Students Enrolment Form:

ROLL NUMBER	21ECAB01
STUDENT NAME	ABDULAH
DOB	22-01-2000
GENDER	☒ MALE ☐ FEMALE
BATCH	2019-2022
MAJOR	COMPUTER APPLICATIONS
DEGREE	BCA
SAVE HOME	

STAFF ENTRY FORM...

STAFF ID	CS005
STAFF NAME	KAMAL
DOB	02-01-1982
GENDER	☒ male ☐ female
QUALIFICATION	M.Sc., M.Phil.
DEPARTMENT	Computer Science
STREET	SAMADH SCHOOL STREET
SAVE CLEAR	
HOME EXIT	



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INVESTIGATION OF FOAMING CAPACITIES OF DIFFERENT SOAP

DBT Star College Scheme Under Graduate Group Project

Submitted by

Name	Register Number
ABDUL BASITH	18UCH001
M. ABUBAKAR SIDDIQ	18UCH002
AHAMED HUSSEIN V.O.G.	18UCH003
AHAMED IJAZ	18UCH004
M. AHAMED SHERIFF	18UCH005

Under the support and guidance of

Dr. M. Mohamed Sihabudeen

Associate Professor & Head
Department of Chemistry

Interdepartmental Project

Submitted to



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March – 2021



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Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

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Department of Mathematics

Students Actively participate in the Problem Solving Event like Math Quiz and



Math Quiz



Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

DEPARTMENT OF MATHEMATICS

Department of Mathematics

1) Title of the Project An Analyse On Reasons From Arts Students For Choosing Arts Stream

Name of the Mentor Dr. U. Abuthahir

Abdul Rahman Mohamed	(19UMA001)
Aathil R	
Mohamed Ashik I	(19UMA029)
Mohamed Ashiq J	(19UMA030)
Mohamed Gani M	(19UMA032)
Saravanan R	(19UMA053)
Yasar Arafath A	(19UMA064)

Abstract: As many colleges reported that there is a decrease in the strength in science streams in recent academic years. As to find the solution for this problem we collect some main possible reasons from the Arts students through a Survey and with help of SPSS tool we give the solution for this problem. By the end of this project, we came to know that 80% of Science Streams is been ignored by students because the students think the particular subject is hard to learn. Nothing is hard and Nothing is easy in this world but “The we approach it Matters”. This Project will definitely aware the Teachers and Parents. If we try to rectify the reasons (received from the students) we can definitely increase the admissions for Science Stream in future academic years.

2) Title of the Project: Impact of Social Networking sites among under graduate students during Covid 19 Pandemic

Name of the Mentor Dr. A. Prasanna

Mohammed Imthiyas S	(19UMA040)
Mohamed Ismail M	(19UMA034)
Mohamed Musavirudeen M	(19UMA036)
Asan Sherif A	(19UMA006)
Bharathikannan S	(19UMA008)

Abstract: During the outbreak of the COVID-19 pandemic, interpersonal interactions are restricted to social networks. Undergraduate students are isolated in their homes and dorms. Loneliness is closely related to psychological distress. Fear of contracting the disease will worsen psychological distress. The purpose of this study is to assess the severity of depression, anxiety, and stress symptoms because of accessing social media networking sites among undergraduate



Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

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students during the COVID-19 lockdown. An online survey was used to recruit nearly 150 participants for this cross-sectional descriptive study. Self-reported questionnaires were used to collect data on social networking usage. By the end of this project we came to know that most of the students spent their time on entertainment and for their study purpose using social networking sites. Social networking sites has positive as well as negative side. This project will definitely give an awareness to the people and the government about the usage of networking sites by the students. So, government should take action against unwanted sites

3) Title of the Project Mental Health among under graduate students in Covid-19 Pandemic

Name of the Mentor : Mr. S. Masoothu

Hasan Malik S (19UMA014)

Shuhail Ahamad S (19UMA055)

Mohamed Kani H (19UMA035)

Jailani K (19UMA018)

Hussain Mohamed J (19UMA015)

Hyder Ali A (19UMA016)

Abstract: The COVID-19 pandemic has created a mental health crisis among college students in India due to lockdown restrictions, overwhelming numbers of COVID-19 cases, financial difficulty, etc. This mental health crisis has led to high degrees of Fear, anxiety, and depression among college students. During the COVID-19 pandemic, a decrease in well-being and an increase in mental health problems were registered in medical and psychotherapeutic practices, counselling centers and clinics. Younger people and women seemed to be particularly affected. The aim of this study was to describe mental health problems of students and to draw consequences for the further handling of pandemics and other crises.

The aim of this study is to investigate symptoms of fear, depression, and anxiety due to the COVID-19 pandemic among college students in India. Over 55% of college students have experienced mental health symptoms due to the pandemic, according to in our survey. Nearly half percent of students struggle with isolation, anxiety, and a lack of focus on study. Students have also found it difficult to participate in online classes and complete homework. The Impact of COVID-19 mental health among college students social Distancing and Isolation infections, reduced access to family, friends, and other social support systems have increasing mental issues like anxiety and depression, suicide.



Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

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4) Title of the Project: Application of Number Theory in Cryptography

Name of the Mentor : Mr. N. Mohamed Thoiyab

A.Mohamed Iqbal	(19UMA002)
A.Anvar Basha	(19UMA004)
A.M.Mohamed Aathil	(19UMA026)
B.Tamil Selvan	(19UMA041)
M.Musthak	(19UMA042)
M.Veeramani	(19UMA062)

Abstract: Number theory plays a vital role in cryptography, this project focuses on applications of primes and liner congruence's in cryptography. Also the RSA algorithm and some generalization of RSA are discussed with suitable numerical examples. In our project, the RSA algorithm is used and some generalization of RSA is given. The outcome of this generalization is to improve the security level in data transmission between the sender and receiver even though it is complicated while performing calculations. Maple programming language is used for simplifying the complex calculations in generalization of RSA algorithm. The main impact of RSA cryptography is for securing the data. RSA encryption is often used in combination with generalized RSA encryption schemes, or for digital signatures which can prove the authenticity and integrity of a message.

5) Title of the Project: Comparative Study on electric vehicles and conventional (fuel) vehicles

Name of the Mentor: Dr. A. Mohamed Ismayil

Dhayanithi M	(19UMA010)
Tamil Selvam S	(19UMA057)
Thomas Edison A	(19UMA058)
Vasan R	(19UMA059)
Yogaraj C	(19UMA066)
Yogesh M	(19UMA067)

Abstract: The research is focusing on the research of current situation for the buyers and the less and more favorable conditions in Indian automobile industry. The principal of the report is a comparative research of electric vehicle and conventional vehicles. In addition to this, the project focuses on the total cost of ownership of owning Electric vehicle instead of the conventional vehicle in the Indian market. The research also emphasizes on manufacturer perspective by finding out the best segment to launch an electric vehicle in India. In addition, the project assumptions are used in the formation of a questionnaire focusing on finding out about the awareness of electric vehicles among the publicity nowadays. The final statement that is going to be approved or rejected



Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

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is the electric vehicle as a better alternative to the conventional vehicle in India. This project observed that 60.12% people agree with the e-vehicle benefits. So here we reach our conclusion E- bike is the futuristic bike and majority of people would like to buy e-vehicle and own it. This project definitely aware the people, e-bike will reduce the air pollution and know about the subsidiary given by the government to buy the e-vehicle.

6) Title of the Project: Covid-19 Awareness among under graduate students in Tiruchirappalli region (A Questionnaire Based Survey Using SPSS)

Name of the Mentor: Dr. S. Mohamed Yusuff Ansari

Ahamed Ashik Ali A	(19UMA003)
Kaja Sherip S	(19UMA021)
Kamala Kannan S	(19UMA023)
Mohamed Rizwan A	(19UMA037)
Nafis Ahamed A	(19UMA044)
Yasar Arafath P M	(19UMA065)

Abstract: The rapid and extensive spread of the COVID-19 pandemic has become a major cause of concern for the healthcare profession. The aim of this study is to assess the awareness of COVID-19 disease and related infection control practices among under graduate students in the Tiruchirappalli region. The overall awareness for all subgroups was adequate with “85%” reporting correct answers. The highest percentage of correct responses were from undergraduate “B.Sc zoology” students and the lowest was from “B.Sc computer Science”. Less than half of the total respondents could correctly define “close contact.” More than three-fourths of the responders were aware of the various infection control measures like rapid triage, respiratory hygiene, and cough etiquette and having a separate, well ventilated waiting area for suspected COVID-19 patients. However, more than “70 percent” of the responders were aware of the correct sequence for the application of a mask/respirator, and only 12.9% of the responders were aware of the preferred hand hygiene method for visibly soiled hands. And “75% of the responders used “COVISHIELD Vaccine” and remaining used “COVAXIN”. Also more than “95%” of people are two dose vaccinated persons and “4%” are 1st dose only persons. There is a need for regular educational interventions and training programs on infection control practices for COVID-19 across all undergraduate students are paramount importance to minimize the risk of transmission to UG students and provide optimal care for them. Also COVISHIELD is the most ACCEPTABLE vaccine among all UG students. And finally more than three fourth of the students(responders) are more aware of COVID-19 disease and they are aware of protection and prevention in COVID.



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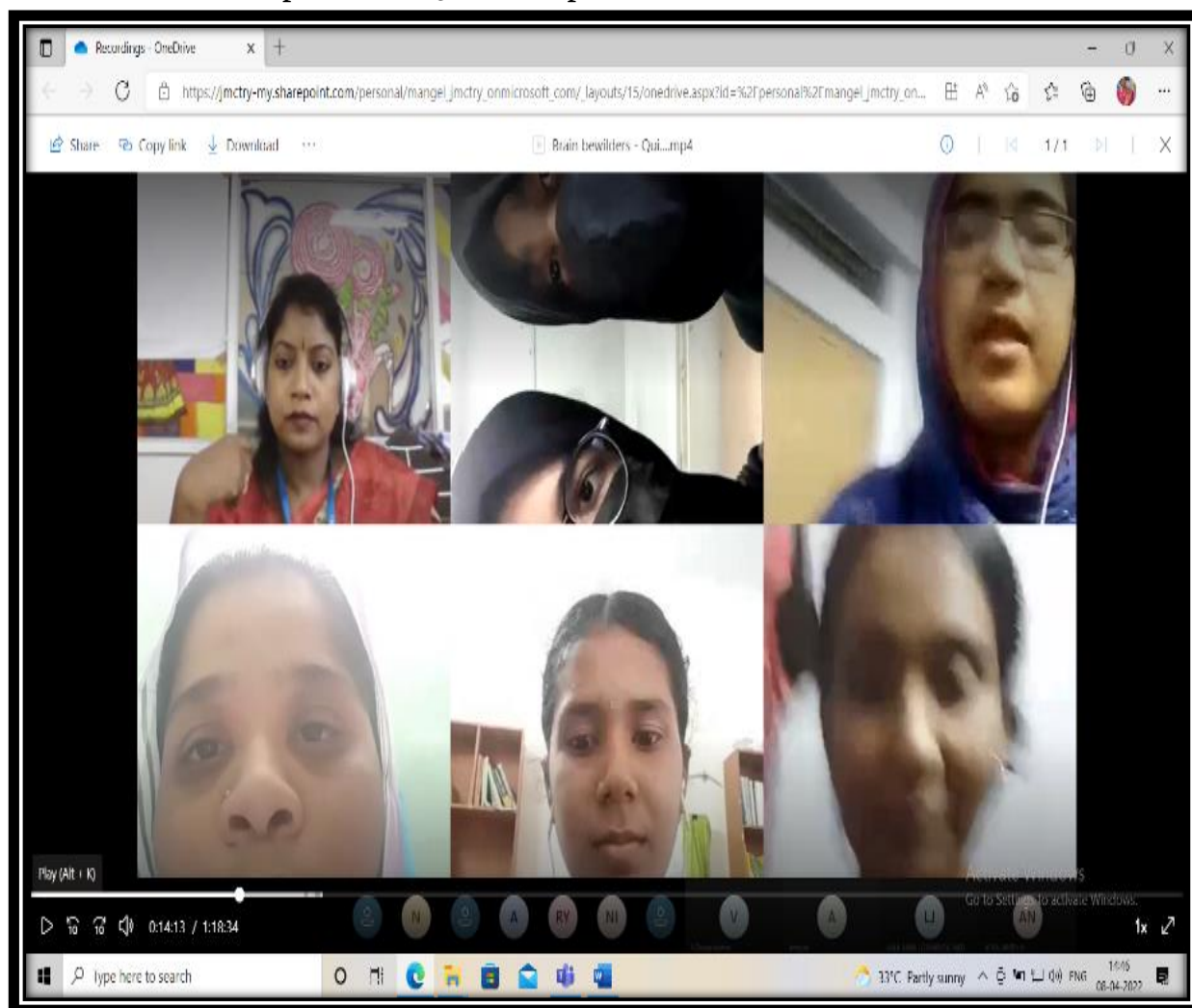
Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

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Department of Nutrition and Dietetics

Students Participation in Quiz Competition Conducted in Online 16.09.2021



Quiz



Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

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DEPARTMENT OF PHYSICS

Department of Physics

1) Title of the Project : Determination of molar refraction and confirmation of structure of certain liquids

Name of the Mentor : Dr. A. Ishaq Ahamed

Abbas Ali K (19UPH001)

Abdul Malik J (19UPH003)

Abimanyu M (19UPH004)

Abstract: It is a known fact that light travels with different velocities in different media. For example, the velocity of light is different in the condensed phase of matter (solids, liquids) when compared to gaseous phase. This variation of velocities is quantified by the refractive index. It is defined as the ratio of the velocity of light in vacuum to the velocity of light in the medium. The experimental determination of the refractive indices of different media has therefore led to the birth of the field of the refractometry. The refractive index is a useful physical property of liquids. For example, the purity of a liquid sample, its density, concentration etc. can be determined from an experimental measurement of its refractive index. Even in the case of solids this idea can be extended. This can be done by dissolving a solid in a suitable solvent and measuring the refractive index of the solution. The refractive index of the solute and hence its molar refraction can be then by obtained. The molar refraction is the product of the molar mass of the liquid and its specific refraction. It has been found that the molar refraction increases in regular increments with the numbers of carbon atoms within a homologous series. This finding has led to the notion that the molar refraction of the compound can be considered to be the sum of the atomic increments. Further within certain limits, the atomic contribution to the molar refraction is found to be the same in every molecule. Hence obtaining the molar refraction of the sample experimentally, and comparing it with the theoretically calculated values, an idea of the bond linkages and hence the structure of the sample can be had. In the project, we intend to measure the refractive indices of certain compounds and hence their molar refraction values. Then by calculating these using theoretical formulas, we intend to determine their structure.

2) Title of the Project Basic concept of solar energy – Solar Power Bank

Name of the Mentor Dr. N. Peer Mohamed Sathik

Abrar Ahamed A (19UPH005)

Aburar M (19UPH006)

Afrith Ahamed S (19UPH007)

Abstract: The objective of this project is to study a Solar Powered Portable Power Bank for mobile phone using sunlight as its ultimate power, which can be used effectively during disaster events. It has in-built solar panel which converts the solar energy to electrical energy. The charge is then



Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

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transferred to a battery for storage of charge for further use, with the battery having a microcontroller indicating the percent of charge present in the battery. The battery is connected to a charging circuit having an USB port as output to the respective Mobile phones.

3) Title of the Project Design and development of home appliances -an overview of hybrid solar cooker

Name of the Mentor: Dr. R. Radhakrishnan

Ajmal Khan M (19UPH008)

Apsar Ali M F (19UPH009)

Arunkumar R (19UPH010)

Abstract: The number of solar cookers like solar panel cooker, solar parabolic cooker, solar box type cooker and hybrid solar cooker etc. have been designed and developed by the scientists and researchers all over the world but still the utilization of solar cooker is not sufficient. But the development of a photovoltaic and thermal hybrid solar cooker has started a new horizon in the field of solar cookers as the cooking is faster than conventional box type solar cooker and can be used at users convenient time. In this project we want to review a hybrid cooker where the solar energy is transferred to the kitchen and supplements the conventional cooking source LPG and suggest possible ways to improve it.

4) Title of the Project : Determination of refractive index of different liquids using hollow prism

Name of the Mentor Capt. F.S. Muzammil

Ashwaak B (19UPH011)

Askar Ali A (19UPH012)

Azarudeen N (19UPH013)

Abstract: A simple reliable and common method of measuring refractive index of liquid is by the measurement of angle of minimum deviation produced by a light beam that passes through the liquid contained in a hollow prism made of transparent glass. In this work, we gone through some experimental efforts to get the refractive indices of certain transparent liquids like, water, benzaldehyde, dilute sulfuric acid and kerosene. The result is verified with Abbe refractometer which suits best for assessment refractive index of transparent liquids.



Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

5) Title of the Project : Analysis of the Role of Molar Mass, Molecular Polarizability and Refractive Index “n” for some Amines and Ether groups

Name of the Mentor Dr. R. Raj Muhamed

Dhilip G (19UPH014)
Dinesh Kumar P (19UPH015)
Gokul V (19UPH016)
Harikrishna S (19UPH017)

Abstract: The refractive indices of solvent mixture and solutions were measured by Abbe's refractometer. For evaluating the molar refraction and polarizability constant of the compounds, pure chemicals amines (n butylamine, N-propylamine, di-n propylamine, di-isopropylamine, N-amylamine) ethers (Anisole, Tetra Hydro Furan (THF), 1,4 dioxane, di phenylether). The temperature was maintained by using the thermostat. The data obtained was used to compute intermolecular interactions. The substituted bis schiff bases ligands used for the study were synthesized by standard method.

6) Title of the Project: Determination of dielectric constant for certain liquids

Name of the Mentor Mr. J. Umar Malick

Harishraj V (19UPH018)
Irsath Ahamed J (19UPH019)
Kingson Shyam M (19UPH020)
Marimuthu M (19UPH021)

Abstract: A liquid dielectric is a dielectric material in liquid state. Its main purpose is to prevent or rapidly quench electric discharges. Dielectric liquids are used as electrical insulators in high voltage applications, e.g. transformer, capacitors, high voltage cable and switchgear. Its function is to provide electrical insulation, suppress corona and arcing and to serve as a coolant. A good liquid dielectric should have high dielectric strength, high thermal stability and inertness against the construction materials used, non-flammability and low toxicity, good transformer properties and low cost. In this project work, four dielectric liquids namely Benzene, Toluene Cyclohexane and n-Hexane have been chosen.



Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

7) Title of the Project : A comprehensive review on Solar Cookers

Name of the Mentor: Dr. J. Ebenezer

Mohamad Arshath S (19UPH022)

Mohamed Akram A (19UPH023)

Mohamed Mushraf (19UPH024)

Mohamed Naveeth K (19UPH025)

Abstract: The continuous increase in the level of greenhouse gas emissions and the increase in fuel prices are the main driving forces behind efforts to more effectively utilize various sources of renewable energy. In many parts of the world, direct solar radiation is considered to be one of the most prospective sources of energy. among the different energy end-users, energy for cooking is one of the basic and dominantly used in developing countries. energy requirement for cooking accounts for 36% of total primary energy consumption in India. Hence, there is a critical need for the development of an alternative, appropriate, affordable mode of cooking for use in developing countries. in this project, a comprehensive review of solar cookers is presented. it also covers a historic overview of solar cooking technology, detailed description of various types of solar cookers. The working principle of solar cooker is that light energy from sun is onto a receiving surface such as a cooking pot or pan. the light energy interacts with the receiver material and transfer to heat energy by the conduction process and cooking food. he environmental impacts and future potential of solar cookers are also discussed.

8) Title of the Project: Solar Electric Power Generation

Name of the mentor: Dr. A. Abbas Manthiri

Mohamed Sabeek J (19UPH026)

Mohamed Zaid S (19UPH027)

Mohamed Halith A (19UPH028)

Mujipur Rahuman (19UPH030)

Abstract: The solar energy is produced by the sunlight is a non-vanishing renewable source of energy which is free from ecofriendly. Every hour enough sunlight energy reaches the earth to meet the world's energy demand for a whole year. In today's generation we needed electricity every hour. This solar energy is generated by as per applications like industrial, commercial, and residential. It cans easily energy drawn from direct sunlight. So it is very efficiency & free environment pollution for surrounding. In this project, we have reviewed about the solar energy from sunlight and discussed about their future trends and aspects.



Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

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DEPARTMENT OF ZOOLOGY

PV module. The chosen model is the single diode model with both series and parallel resistors for greater accuracy.

Department of Zoology

1) Title of the Project : Studies on The Ground Water Quality of Hanifa Colony, N.M.K Colony, Race Course Road, TVS Tolgate area Tiruchirappalli, TN

Name of the Mentor : Dr. Hussain Syed Bava

Fazlur Rahman A (19UZO008)

Chandru S (19UZO007)

Inamul Hasan F (19UZO010)

Jeeva T (19UZO011)

Abstract: Ground water is an important source of water for drinking agriculture and other house hold purposes, but high population growth industrialization and lack of oversight environmental policies and implementation have not only degraded the quality but also stressed the quantity of this previous source of water. Many optimists existed but this study evaluated the quality of groundwater used for potable consumption with a simple approach in an urban area (Race course road, Hanifa colony, NMK colony). The study sought to determine the main control of groundwater chemistry and its suitability for drinking and domestic purposes in the above area. Ground water is a valuable and widely disposed resource of the earth this most valuable resource is sometimes in adequate due to improper use of surface and ground water aquifers bore water sample have been collected and estimated different chemical parameters like calcium silicate, Hardness, dissolved, oxygen, chloride, phosphate, nitrate, and pH. Pollution of groundwater resources is one of the major challenges faced by rapidly developing countries like India.

2) Title of the Project Influence of different types of feeds on the growth performance of *Carassius auratus* (Gold Fish)

Name of the Mentor : Dr. K. Prabakar

Mr. M.Mohamad Uvais (19UZO015)

Mr. S.Mohamed Afzal (19UZO016)

Mr. K.S.Mohamed Akthar (19UZO017)

Abstract: This investigation aimed to Analyses the influence of different feeds and determine the optimal feed on the growth performance of Goldfish. In the present study goldfishes were procured



Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

from commercial fish breeders kolathur, Chennai and fed with 4 experimental diets namely Diet 1 (control pellet feed), Diet 2 (formulated feed), Diet 3 (Dry Tubifex) and Diet 4 (Glycera) to examine the effects on growth and survival rates. In the experiment, 12 glass circular tanks with the volume of 10 liter were used and 10 goldfishes having an average body weight and length of 0.01 gram and 0.8 Centimeter were randomly introduced into each aquarium. During the experimental study the fish were fed 2 times a day for 30 days the various growth parameters and proximate composition of the diets were calculated by following standard methods. The findings showed Significant differences in the fish various growth parameters fed with different feeds. The fish fed with diet 4 crude protein (59.13%) performed better than those provided with lower levels. The increase in growth parameters could be attributed to increase the levels of dietary crude protein. However, the diet does not have any significant impact on fish survival rates. Thus, it is concluded that the live feed Glycera with 59.13% crude protein is suitable for the optimal growth of *Carassius auratus* under the current experimental setup and recommend for the feeding goldfish.

3) Title of the Project: Digitalization of Zoological Specimens available at Jamal Mohamed College Museum

Name of the Mentor: Dr. H.E Syed Mohamed

A. Abuthahir (19UZO002)

S. Mohamed Salman Arsath (19UZO019)

A. Mohamed Subair (19UZO020)

Abstract: The Zoological Museum of our college is a structure of high potential for development due to a rich collection of representatives of the animal world and traditions of participation in research on an all scale. This potential is not fully realized due to both changes in departmental affiliation and difficulties associated with replenishing the collections performed by conventional methods. The paper proposes a development concept based on modern concepts of museum destination in terms of participation culture. The formation of an advanced mobile and polyphonic exhibition space will promote its attractiveness and increase the information content of the museum. Digital technologies, including augmented and virtual reality technologies, will be used to replenish collections. A live collection of fish from local waters will enhance the research and social capabilities of the museum as a place for the communication of like-minded people. Information support in the media, social networks, and museum websites is a reserve for attracting and highlighting active users. However, the main approach implies the competent methodological and active promotion of the complex educational services in accordance with the consumer requirements. Scaling the project activities of university students allows its use as a source for concept implementation. Museum specimens form the basis for research on evolution, speciation, and distribution, and also provide an important baseline for studies of conservation and emerging diseases (e.g., hantavirus, West Nile Virus, chytridiomycosis, to name a few). Specimens and their



Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

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associated data (e.g., field notes of habitat, recordings of song, reproductive and age information, etc.) also provide information on the natural and life history traits of animal.

4) Title of the Project : Assessment of Milk adulteration In Tiruchirappalli City

Name of the Mentor : Dr. M. Meeramaideen

Abdul Rasak Alaudeen.S (19UZO001)

Mohamed Rizwan. Z (19UZO018)

Zakeer Hussain. A (19UZO037)

Abstract: All the milk samples analysed shows one or two adulterant both January and February, 2022. Sample A shows only acidity and heat stability and free from other adulterants. The remaining samples show the detergents and mastitis. Detergents may be due to improper washing of vessels during the transmission results. Mastitis is due to improper maintenance of hygiene, due to this bacterium such as staphylococcus aureus, cause mastitis. The mastitis may transfer from one cattle to another by milking, machine. According to FSSI least adulteration recorded in Tamilnadu and Pondicherry, in Tamilnadu the contamination due to lack of awareness. In Tamilnadu we could reduce these contaminants by making awareness.

5) Title of the Project: Screening Of In Vitro Antioxidant Potential and Biochemical Characterization Of *Calotropis Gigantea* Through FTIR Spectral Analysis

Name of the Mentor : Dr. S. Mohamed Hussain

K. Mohamed Alrashid (19UZO 022)

A. Mohammed Ali (19UZO 023)

S. Mohammedafsal (19UZO 025)

Abstract: In the present study, methanolic extract of *Calotropis gigantea* leaf is subjected for FTIR analysis for the detection of various functional groups present. The FTIR spectrum obtained confirmed the presence of certain functional groups. The sample was also subjected to Total antioxidant activity, In vitro free radical scavenging assay, DPPH assay, Ion chelating assay for different concentration also gave promising results. *C. gigantea* showed consistent antioxidant activity with increased concentration whereas ascorbic acid and BHA were used as standard.



JAMAL MOHAMED COLLEGE (AUTONOMOUS)

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TIRUCHIRAPPALLI – 620 020

NAAC - SSR IV CYCLE

Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

DEPARTMENT OF BIOTECHNOLOGY

**Drug Repurposing For Food Borne Bacterial Diseases Using
Systems Medicine Approach**

Dissertation submitted to

JAMAL MOHAMED COLLEGE (AUTONOMOUS)

In Partial Fulfilment of the Requirements for the award of the Degree of

MASTER OF SCIENCE IN BIOTECHNOLOGY

By

P.VINITHA

Reg.NO.19PBT011

Under the Guidance of

Dr.K. Gobalan, M.Sc., M.Phil.,Ph.D.,

Assistant Professor



PG AND RESEARCH DEPARTMENT OF BIOTECHNOLOGY

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APRIL 2021



JAMAL MOHAMED COLLEGE (AUTONOMOUS)

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NAAC - SSR IV CYCLE

Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

**Efficacy of Laccase bases wood decaying fungi on
azo dye Bioremediation**

Dissertation submitted to

JAMAL MOHAMED COLLEGE (AUTONOMOUS)

In Partial Fulfilment of the Requirements for the award of the Degree of

MASTER OF SCIENCE IN BIOTECHNOLOGY

By

R. MANIKANDAN

Reg.NO.19PBT002

Under the Guidance of

Dr. Y. Arsia Tarnam, M.sc, M.Phil., Ph.D.,

Assistant Professor



**PG AND RESEARCH DEPARTMENT OF
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Tiruchirappalli – 620 020

Dr. Y. Arsia Tarnam, M.Sc., M.Phil., Ph.D
Assistant Professor, PG & Research
Department of Biotechnology
Jamal Mohamed College,
Tiruchirappalli, TamilNadu, India.

CERTIFICATE

This is to certify that the dissertation, entitled “**Efficacy of Laccase bases wood decaying fungi on azo dye Bioremediation**” submitted to Jamal Mohamed College, Tiruchirappalli, for the award of the degree of Master of Science in Biotechnology, is a record of the research work carried out by **Mr.R. Manikandan** (Reg. No. 19PBT002) during the period 2020-2021 of her study in the PG and Research Department of Biotechnology, Jamal Mohamed College (Autonomous), under the guidance and supervision of **Dr.Y. Arsia Tarnam, M.sc, M.Phil., Ph.D., Assistant professor, PG and Research Department of Biotechnology, Jamal Mohamed College (Autonomous), Tiruchirappalli, Tamil Nadu – 620 020.** The dissertation has not formed the basis for the award of any Degree/ Diploma/ Associateship/ Fellowship or other similar title to any candidate of any University.


Signature of the Guide


Head of the Department



JAMAL MOHAMED COLLEGE (AUTONOMOUS)

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NAAC - SSR IV CYCLE

Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

**ISOLATION AND CHARACTERIZATION OF AMMONIA OXIDIZING
BACTERIA AND SHRIMP PROBIOTICS**

Dissertation submitted to

JAMAL MOHAMED COLLEGE (AUTONOMOUS)

In Partial Fulfillment of the Requirements for the award of the Degree of

MASTER OF SCIENCE IN BIOTECHNOLOGY

By

R. VINODHINI

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Under the Guidance of

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PG AND RESEARCH DEPARTMENT OF BIOTECHNOLOGY

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NAAC - SSR IV CYCLE

Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

**Substrate optimization for high yield of inulinase by submerged
and solid state fermentation**

Dissertation submitted to

JAMAL MOHAMED COLLEGE (AUTONOMOUS)

In Partial Fulfilment of the Requirements for the award of the Degree of

MASTER OF SCIENCE IN BIOTECHNOLOGY

By

K.RAGU

Reg.NO.19PBT005

Under the Guidance of

Dr.Y. Arslia Tarnam ,M.sc,M.Phil.,Ph.D.,

Assistant Professor



PG AND RESEARCH DEPARTMENT OF BIOTECHNOLOGY

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NAAC - SSR IV CYCLE

Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

**Biomedical Applications Of Chemically Synthesized
Yttrium Oxide Nanoparticles (Y_2O_3 NPs)**

Dissertation submitted to

JAMAL MOHAMED COLLEGE (AUTONOMOUS)

**In Partial Fulfillment of the Requirements for the award of the Degree of
MASTER OF SCIENCE IN BIOTECHNOLOGY**

By

M. SHIFA PARVEEN

Reg. No. 19PBT009

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Dr. S. BENAZIR BEGUM, M.Sc., M. Phil., Ph.D.,

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PG AND RESEARCH DEPARTMENT OF BIOTECHNOLOGY

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April 2021



Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

DEPARTMENT OF BOTANY

(i) Department of Botany

Group II Title of the Project

Production of eco-friendly cleaning liquids from fruit and vegetable waste using beneficial microbes

Name of the Mentor : Dr. A. Aslam

Students Name : E. Elavarasan, Reg No. 18UBO007
A. Gobinath, Reg No. 18UBO008
K. Gokul, Reg No. 18UBO009
R. Gobinath, Reg No. 18UBO010
S. Gowrisankar, Reg No. 18UBO011

Abstract

A survey of vegetable and fruit waste production from the surroundings of Jamal Mohamed College was carried out. More than five Citrus fruit juice stalls were found to continuously produce peel waste as a waste. This biological solid waste is selected as a potential source of endophytic microbes that can produce substances that have cleaning properties such as organic acids (citric acid) and aldehydes by using jaggery as a carbon source. Preparation of incubation medium using jaggery with ratio of 1:2:10 weight of jaggery fruit/vegetable waste and water. Citrus (Orange and lemon) peels were selected to be best raw materials due to their smell-less end product. The batch culture was prepared in re-useable plastic drums (30L net capacity). The culture was incubated for 60 days with aeration by stirring for removal of CO₂ from fermentation. After 60th day the lid was closed for 30 days in air tight manner. After 90 days the fermented liquid can be segregated into different grades by filtering dissolved degraded solids. This end product liquid was found to be rich in citric acid and acetic acid in low concentration. The end product of batch culture was 20L fermented liquid was separated into clear supernatant (to be used for personal use), intermediate turbulent liquid (to be used for surface cleaning). As a trial, soap nut paste was added as a hair conditioner pack using the clear supernatant. The overall production of clear liquid was about 8L at the cost of 150 Rupees. Further dilution and cost benefit analysis can bring out eco-friendly organic personal use and cleansing products.



Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

Group III Title of the Project

Agriculture green development: Recycling of agriculture wastes through edible mushroom cultivation

Name of the Mentor : Dr. K. Mohamed Rafi

Students Name : G. Gowtham, Reg No. 18UBO012
S. Harish, Reg No. 18UBO013
L. Jerom Savari Raj, Reg No. 18UBO014
K. Keethai Rajan, Reg No. 18UBO015
M. Mohamed Aathif, Reg No. 18UBO016

Abstract

The mushroom cultivation is a profitable agribusiness and oyster mushroom (*Pleurotus florida*) is an edible mushroom having excellent flavor and taste. The cultivation of mushrooms has a great potential for the production of protein rich quality food and for recycling of cellulosic agro-residues and other wastes. The effect of different temperature and humidity was tested to grow the mushroom. In this experiment the best result was observed at 35 C and 75% humidity, the number of shoot buds (pinhead) formatin is more. Out of Paddy Straw, Sugarcane bagasse, Sugarcane leaf, waste grass and Saw dust substrate, the better yield is obtained in paddy straw (bed weight 3kg/200 spawn). The total yield of the mushroom is obtained as 1560 gms.

Group IV Title of the Project

In vitro studies, phytochemical constituents and pharmaceutical activities of the genus *Plectranthus* – A review.

Name of the Mentor : Dr. N. Ahamed Sherif

Students Name : S. Mohamed Jakariya, Reg No. 18UBO017
A. Mohamed Nivas, Reg No. 18UBO018
M. Muges Sharma, Reg No. 18UBO019
S. Niyaskhan, Reg No. 18UBO020
A. Nizar Ahamed, Reg No. 18UBO021

Abstract

The *Plectranthus* is an herbal genus that belongs to the family Lamiaceae and distributed all around the world with numerous ethnomedicinal significance. *Plectranthus* species has a wide range of bioactive chemical compounds such as Monoterpenoids, Sesquiterpenoids, Diterpenoids, and Phenolic. Most commonly, the abietane diterpenoids are isolated from the species of *Plectranthus*. The bioactive isolates were widely used to treat digestive, skin, infective, and respiratory problems, and several species were used as foods, flavors, and fodder. This review highlights the chemical constituents of the species present in the genus *Plectranthus* to explain their medicinal uses and further, to identify, synthesis and utilization of bioactive compounds for human welfare.



Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

DEPARTMENT OF CHEMISTRY

(ii) Department of Chemistry - (Section A)

Group I Title of the Project

Investigation of foaming capacities of different Soap

Name of the Mentor : Dr. M. Mohamed Sihabudeen

Students Name : S. Abdul Basith, Reg No. 18UA4701
M. Abubakar Siddiq, Reg No. 18UA4703
M. Ahamed Hussain, Reg No. 18UA4704
V.O.G. Ahamed Ijaz, Reg No. 18UA4705
M. Ahamed Sheriff, Reg No. 18UA4706

Abstract

To investigate foaming capacity of different washing soap and effect of addition of sodium carbonate on them. Soaps and detergents are cleaning ingredients that are able to remove oil particles from surfaces because of their unique chemical properties. Soaps are created by the chemical reaction of a fatty acids with an alkali metal hydroxide. In a chemical sense soap is a salt made up of a carboxylic acid and an alkali like sodium or potassium. The cleaning action of soap and detergents is a result of their ability to surround oil particles on a surface and disperse it in water.

Group II Title of the Project

Determination of different qualities of Milk samples

Name of the Mentor : Dr. M. Syed Ali Padusha

Students Name : B. Alsheik Faris, Reg No. 18UA4707
A. Aravintharaj, Reg No. 18UA4709
S. Ashik Moulana, Reg No. 18UA4710
Ashraf Samsudeen, Reg No. 18UA4711
R. Balaji, Reg No. 18UA4714

Abstract

Milk is a commercial product consumed around the world is of different quality that depends on various conditions such as the physicochemical contents, processing methods, storage time and packaging material. In this study, the physicochemical properties of three different brands such as Aavin, Arokyia and Vethaa products of Tamilnadu were determined. Milk samples were tested for acidity, fat, formalin, specific gravity, solids-not-fat, soap, alcohol precipitation and Urea. The fat content of the milk samples varies from 2% to 6%. Acidity content of a quality milk normally ranges between 0.6 to 0.16 percentage, and the results obtained for the samples are 0.08, 0.12 and 0.1 respectively, which ensures the good quality of the milk samples. Most of the physicochemical properties were found to be bit higher for Vethaa milk sample while compared with other two brands, but not exceeding the consumable parameters provided by Food Safety and Standard Authority of India [FSSAI]. The other elements like formalin, starch, soap, alcohol precipitation and Urea were absent in the sample. The result revealed that the physicochemical properties of tested samples were different slightly among the products, which may be noticeably influence their quality.



Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

Group III Title of the Project

A comparative study of Milks

Name of the Mentor : Dr. A. Zahir Hussain

Students Name : S. Faisal Bin Syed Ibrahim, Reg No. 18UA4720
R. Gokul Nantha, Reg No. 18UA4721
V. Gokulakrishnan, Reg No. 18UA4722
V. Hameed Rasool, Reg No. 18UA4723
R. Hariprasath, Reg No. 18UA4724
M. Hyrunnash Rahamathulla, Reg No. 18UA4725

Abstract

Milk is a commercial product consumed around the world is of different quality that depends on various conditions such as the physiochemical contents, processing methods, storage time and backing material. In this study, the physicochemical properties of different brands such as Buffalo milk, Cow milk, Goat milk, Powdered milk and Soya milk products of Tamilnadu were determined. Milk samples were tested for acidity, fat, specific gravity, solids-not-fat, soap, alcohol precipitation and starch were analysed and compared to the valid standard.

Group IV Title of the Project

Estimation of essential oil content in citrus Peel

Name of the Mentor : Dr. J. Sirajudeen

Students Name : L. Ibrahim Maraikayar, Reg No. 18UA4726
M. Ismail Anas, Reg No. 18UA4727
T. Jawahar Srinath, Reg No. 18UA4728
R. Kannan, Reg No. 18UA4729
K. Keerthivasan, Reg No. 18UA4730
S. Kishore, Reg No. 18UA4731

Abstract

Essential oils are often used in aromatherapy, a form of alternative medicine that employs plant extracts to support health and well-being. To design an extraction system of essential oil from subtle lemon, orange and sweet lime. The use of essential oils as raw material in formulation of by-products allows the revitalization of industries and regional economic growth. Main parameters required for the extraction have been considered as well as, the calculation of the obtained yield. Within the system design, distillation tank measurements, condenser, essential oils separator, mechanical part of the equipment, boiler selection and the distribution of the plant are dimensioned. The procedure manuals and equipment operating manuals were prepared for each step of the process of using this various oil. They are also used as a natural scent in homemade cosmetics and high-quality natural products.



Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

Group V Title of the Project

Foaming capacity of various Soaps

Name of the Mentor : Dr. K. Loganathan

Students Name : G. Logesh, Reg No. 18UA4732
P. Madhavan, Reg No. 18UA4733
V. Manoj, Reg No. 18UA4734
R. Mohammed Akram, Reg No. 18UA4735
H. Mohamed Althaf Hussain, Reg No. 18UA4736
Mohamed Anvar, Reg No. 18UA4737

Abstract

Soaps and detergents are cleaning ingredients that are able to remove oil particles from surfaces because of their unique chemical properties. Soaps are created by the chemical reaction of a fatty acid with alkali metal hydroxide. In a chemical sense soap is a salt made up of a carboxylic acid and an alkali like sodium or potassium. The cleansing action of soap and detergents is a result of their ability to surround oil particles on a surface and disperse it in water. The aim of the project is to investigate foaming capacity of various soaps and help the society better to understand the quality of the soaps that they use in daily life.

Group VI Title of the Project

Detection of chemical additives in Packed Foods (edible sun flower oil)

Name of the Mentor : Dr. M. Anwar Sathiq

Students Name : A. Mohamed Ashik, Reg No. 18UA4738
J. Mohammed Bahath, Reg No. 18UA4739
S. Mohamed Bayasdeen, Reg No. 18UA4740
S M. Mohammed Faisal, Reg No. 18UA4741
M. Mohamed Faizal, Reg No. 18UA4742
A. Mohammad Faseehudeen, Reg No. 18UA4743

Abstract

The six samples of refined sunflower brands oils were obtained from a local market. The aim of this study was to determine the sterol content and degree of fatty acid unsaturation (acid value and saponification value) in edible refined sunflower oils. In the present scenario of nutrition science, the role of fats and oils in human nutrition and their health is found to be very effective. It is now also known that fats and oils besides their earlier recognized role as conventional nutrient as energy provider, may also play an efficient and competent role in immune responses by decreasing dietary total fat intake with the inclusion of higher amounts of phytosterols such as sitosterol and also moderate amounts of poly unsaturated fatty acids with adequate antioxidant nutrients. It has a high quantity of vitamin E, in the form of alpha-tocopherol, which makes it excellent for being used in cooking. It has a high smoking point, which means that sunflower oil holds on to its nutritional content at higher temperatures. The result shows that the degree of unsaturation was higher in plant oils in comparison to animal fat and among all plant Refined Sunflower oil had highest degree of unsaturation. Higher degree of unsaturation of oils is good for the human health. So, apart from all the above discussion the conclusion was made that plant oils are good for consumption as it contains unsaturated fatty acids as well as plant oils are rich in phytosterol i.e. sitosterol, which lowers the cholesterol absorption in human beings.



Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

Group VII Title of the Project

Access the contamination levels of chemicals in easily accessible Drug Paracetamol (Acetaminophen)

Name of the Mentor : Dr. M. Purushothaman

Students Name : A. Mohamed Irfan, Reg No. 18UA4744
S. Mohamed Irfan, Reg No. 18UA4745
J. N. Mohamed Jaffer Refayee, Reg No. 18UA4746
K. Mohamed Jaws, Reg No. 18UA4747
S. Mohamed Juber, Reg No. 18UA4748
J. Gowthaman, Reg No. 18UA4751

Abstract

Paracetamol is a widely used non-prescription analgesic and antipyretic medication for mild-to-moderate pain and fever. Harmless at low doses, paracetamol has direct hepatotoxic potential when taken as an overdose and can cause acute liver injury and death from acute liver failure. Even in therapeutic doses, paracetamol can cause transient serum aminotransferase elevations. However, the contamination levels of chemicals using spectrometry the intensity of absorbance for commercial medical sample paracetamol is measured and beer's law is obeyed in the concentration range of 10-180Mg of paracetamol in final volume of 25ml.

Group VIII Title of the Project

Study of presence of insecticides and pesticides in various fruits, Vegetables and Beverages

Name of the Mentor : Dr. S. S. Syed Abuthahir

Students Name : M. Ramasamy, Reg No. 18UA4752
M. Mohamed Ashkar Ali, Reg No. 18UA4753
M. Thilip Raj, Reg No. 18UA4754
S. Jaffer Hussian, Reg No. 18UA4755
R. Mohamed Raseen, Reg No. 18UA4801
S. Vimalashwaran, Reg No. 18UA4802
A. Barvesh Mushruf, Reg No. 18UA4716
A. Dufail Ahamed, Reg No. 18UA4719

Abstract

The present study is to analysis the presence of pesticides and insecticides in various fruits and vegetable available from various markets in tamilnadu. The analysis technique is done by simple elemental nitrogen analysis. Nitrogen present in organic compounds is detected by Lassaigne test. Nitrogen, Sulphur, and halogens present in organic compounds are detected by Lassaigne's test. This test shows presence of pesticides and insecticides in various fruits and vegetable. If a blue or green precipitate or coloration is obtained it indicates the presence of nitrogen containing insecticides. If a blue or green precipitate or coloration is not obtained it indicates the absence of nitrogen containing insecticides.



Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

(Section B)

Group I Title of the Project

Analysis and comparative study of permissible limit of chemical in the easily accessible Drugs

Name of the Mentor : Dr. M. Seeni Mubarak

Students Name : A. Nithishkumar, Reg No. 18UA4805
S. Mohamed Mansoor, Reg No. 18UA4807
Muzavir Ahammad, Reg No. 18UA4809
G. Porselvan, Reg No. 18UA4810
M. Prasanth, Reg No. 18UA4811

Abstract

A drug is any substance that causes a change in an organism's physiology or psychology when consumed. Drugs are typically distinguished from food and substances that provide nutritional support. Consumption of drugs can be via inhalation, injection, smoking, ingestion, absorption via a patch on the skin, suppository, or dissolution under the tongue. In pharmacology, a drug is a chemical substance, typically of known structure, which, when administered to a living organism, produces a biological effect. A pharmaceutical drug, also called a medication or medicine, is a chemical substance used to treat, cure, prevent, or diagnose a disease or to promote well-being. Traditionally drugs were obtained through extraction from medicinal plants, but more recently also by organic synthesis. Pharmaceutical drugs may be used for a limited duration, or on a regular basis for chronic disorders.

Group II Title of the Project

Detection of food additives in packed foods: chemical composition and product quality control of turmeric powder (*Curcuma longa* L.)

Name of the Mentor : Dr. A. Jafar Ahamed

Students Name : S. Nethaji Subash Chandrabose, Reg No. 18UA4812
R. Santhosh, Reg No. 18UA4813
A. Sheik Abdulla, Reg No. 18UA4814
M. Vignesh, Reg No. 18UA4815
S. H. Muhammad Tawfiq, Reg No. 18UA4816

Abstract

Chemical constituents of various tissues of turmeric (*Curcuma longa* L.) have been extensively investigated. To date, at least 235 compounds, primarily phenolic compounds and terpenoids have been identified from the species, including 22 diarylheptanoids and diarylpentanoids, eight phenylpropene and other phenolic compounds, 68 monoterpenes, 109 sesquiterpenes, five diterpenes, three triterpenoids, four sterols, two alkaloids, and 14 other compounds. Curcuminoids (diarylheptanoids) and essential oils are major bioactive ingredients showing various bioactivities in *in vitro* and *in vivo* bioassays. The essential oils from leaves and flowers are usually dominated by monoterpenes while those from roots and rhizomes primarily contained sesquiterpenes. The contents of curcuminoids in turmeric rhizomes vary often with varieties, locations, sources, and cultivation conditions, while there are significant variations in composition of essential oils of turmeric rhizomes with varieties and geographical locations.



Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

Further, both curcuminoids and essential oils vary in contents with different extraction methods and are unstable with extraction and storage processes. As a result, the quality of commercial turmeric products can be markedly varied. While curcumin (1), demethoxycurcumin (2), and bisdemethoxycurcumin (5) have been used as marker compounds for the quality control of rhizomes, powders, and extract ("curcumin") products, *Ar*-turmerone (13), *α*-turmerone (14), and *β*-turmerone (15) may be used to control the product quality of turmeric oil and oleoresin products.

Group III Title of the Project

Investigation of foaming capacities of different washing Soaps available in the market

Name of the Mentor : Dr. K. Riaz Ahamed

Students Name : A. Murugavel, Reg No. 18UA4817
P. Prithiviraj, Reg No. 18UA4819
S. Praveen, Reg No. 18UA4820
P. Tamilnesan, Reg No. 18UA4821
S. Tamil Selvan, Reg No. 18UA4822
A. Syed Abdulla, Reg No. 18UA4823

Abstract

Soaps are carboxylate salts with very long hydrocarbon chains. Soaps and detergents are cleaning ingredients that are able to remove oil particles from surfaces because of their unique chemical properties. Soap is a common term for a number of related compounds used as of washing clothes or bathing. Soaps are created by the chemical reaction of a jetty acid with on alkali metal hydroxide. The cleaning action of soap and detergents is a result of thrill, ability to surround oil particles on a surface and disperse it in water. To investigate foaming capacity of different washing soap and effect of addition of sodium carbonate on them. In a chemical sense soap is a salt made up of a carboxylic acid and an alkali like sodium of potassium. Soaps are less effective in hard water, which is water that contains a significant concentration of Mg^{+2} and Ca^{+2} .

Group IV Title of the Project

Determination of quality of different samples of Milk

Name of the Mentor : Dr. S. K. Periyasamy

Students Name : P. Nadesh Kumar, Reg No. 18UA4824
C. Naveenkumar, Reg No. 18UA4825
P. Sankar Sathish, P. Thiruppathi
T. Selva Kumaran, S. Thivakar

Abstract

The present study was carried out for quality and safety assessment of cow milk samples was collected. The milk samples were collected from dairy shops, vendors and milk producers and evaluated on the basis of various analysis tests, physical-chemical properties, proximate estimation and chemical studies following the standard procedures. The variation in the concentration of different components found in milk depends on mammalian species, genetic, physiological, nutritional factors, and environmental conditions. Here, we analyse, for the first time, the content of



Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

different components in milk of different brands. The high quality milk should have better density and is free from the adulterants. Milk is most commercially sold commodity both by local vendor's as well super markets. However, in local areas to increase the yield certain adulterants are added which may affect the nutritional quality of milk. Milk adulteration is a social problem. It exists both in the backward and advanced countries. Consumption of adulterated milk causes serious health problems and a great concern to the food industry. The Country milk producers and consumers facing problem to find the quality of milk, accept the fair of price and consumption. So it is necessary to ensure the quality of milk by measuring type and amount of adulterants that are added to the milk. This is performed by using combined electronic sensory instrumental system such as p^H electrodes. The different quality parameters such as colour, pH, adulterates and chemical content are also noted. Food safety and food security are very much at the top of the agenda in India, so it is of utmost importance to screen the quality of milk and milk products in the market for avoidance of skimming practices and/or adulteration of milk with water and human health problems.

Group V Title of the Project

Detection of chemical additives in packaged Foods

Name of the Mentor : Dr. J. Muneer Ahamath

Students Name : V. Vellaichamy, Reg No. 18UA4831
R. Siddik Ali, Reg No. 18UA4832
M. Sikkandar Basha, Reg No. 18UA4833
R. Surendar, Reg No. 18UA4834
R. Ravivarman, Reg No. 18UA4835
S. Mohammed Shajahan, Reg No. 18UA4836

Abstract

This thesis on "Detection of chemical additives in packaged foods" was conceived and carried out with the objective of identifying the presence of adulteration in chilli powder & Sugar (the major ingredients used for cooking in India). Various samples of the above mentioned were collected from local super market. Both branded and unbranded samples were selected for the study to determine the adulteration levels and the qualitative difference between them. The tests were carried out by chemical analysis in a majority of products and through visual inspection in few of the products. After the tests, the products containing adulterants were identified in packed food products. This study is attempted to bring awareness to the public on the important subject of food adulteration and various simplest methods available to detect food adulteration



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Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

DEPARTMENT OF COMPUTER SCIENCE

QUIZ BUCKERS



Quiz programme is conducted as a part of monthly placement activities to enrich the knowledge of I and II years students of Computer Science department. B DIANA and AYISHA FARHATH ABBAS, Department of Computer Science (SF) conducting Quiz Programme on 11.03.2021 at IT Seminar Hall.

QUIZ BUCKERS



AYISHA FARHATH ABBAS, Department of Computer Science (SF) asking Question in QUIZ BUCKERS programme on 11-03-2021



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2.3 Teaching – Learning Process

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DEPARTMENT OF FASHION TECHNOLOGY AND COSTUME DESIGNING

DEVELOPMENT OF HERBAL MASK FOR AIR BORNE MICROBES BY USING BAMBOO FABRIC TREATED WITH OCIMUM SANCTUM (TULSI) AND PIPER BETAL (BETAL) LEAVES EXTRACT

A dissertation submitted to the **JAMAL MOHAMED COLLEGE (Autonomous)**
Affiliated to Bharathidasan University, Tiruchirappalli
In partial fulfillment of the requirements for the award of the degree of

MASTER OF SCIENCE IN FASHION TECHNOLOGY AND COSTUME DESIGNING

Submitted By

K.HARINIMA
(Reg. No: 19PFT001)

Project Advisor

S. MYTHILI M.Sc.,
Assistant professor of Fashion Technology and Costume Designing



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Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

**COMPARATIVE STUDY ON NATURAL DYES WITH
DIFFERENT MORDANTS USING CLITORIA
TERNATEA FLOWER (SANGUPOO)
FOR COTTON AND SILK FABRIC**

A dissertation submitted to the **JAMAL MOHAMED COLLEGE (Autonomous)**

Affiliated to Bharathidasan University, Tiruchirappalli

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

**MASTER OF SCIENCE IN FASHION TECHNOLOGY AND COSTUME
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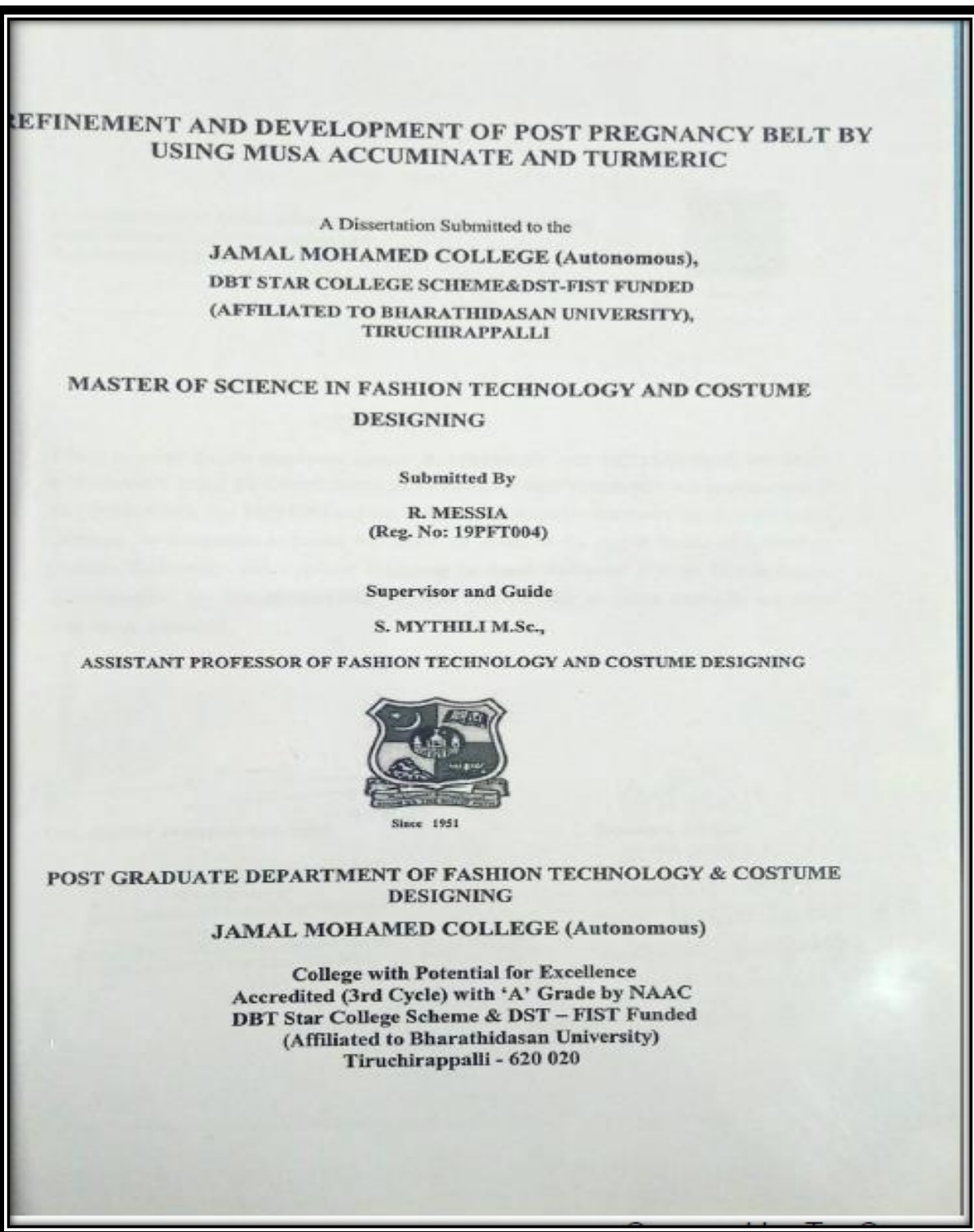
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2.3 Teaching – Learning Process

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**DESIGN AND DEVELOPMENT OF TYRE UPCYCLED
SANDLES FOR AGED PEOPLE**

A Dissertation Submitted to
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(AFFILIATED TO BHARATHIDASAN UNIVERSITY), TIRUCHIRAPPALLI

**MASTER OF SCIENCE IN FASHION TECHNOLOGY AND COSTUME
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2.3 Teaching – Learning Process

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**ANTI MICROBIAL EFFECT OF WOUND GAUZE USING LEAF
EXTRACT OF MILLETTIA PINNATTA(Pongam tree)**

A Dissertation Submitted to

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**MASTER OF SCIENCE IN FASHION TECHNOLOGY AND COSTUME
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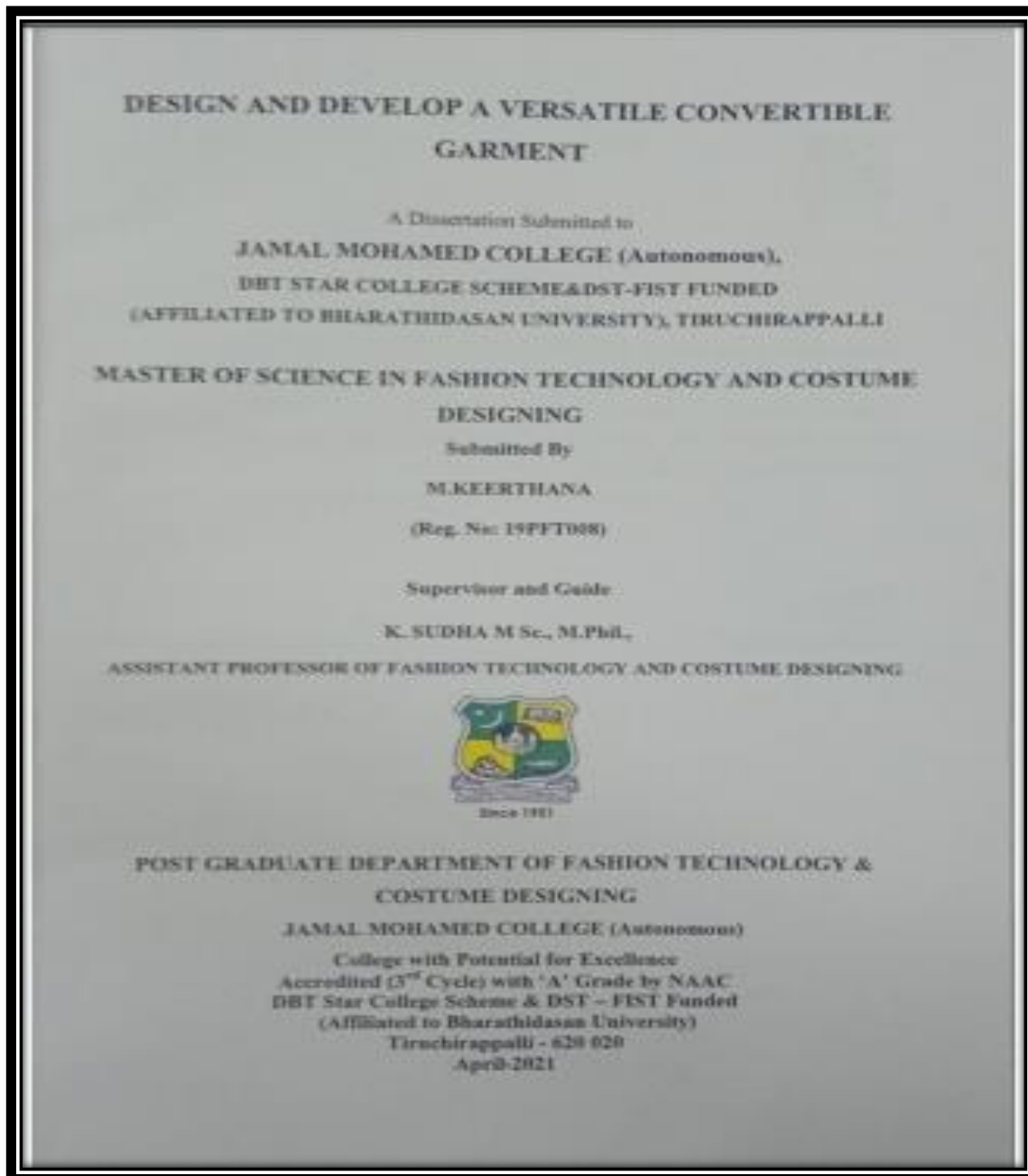
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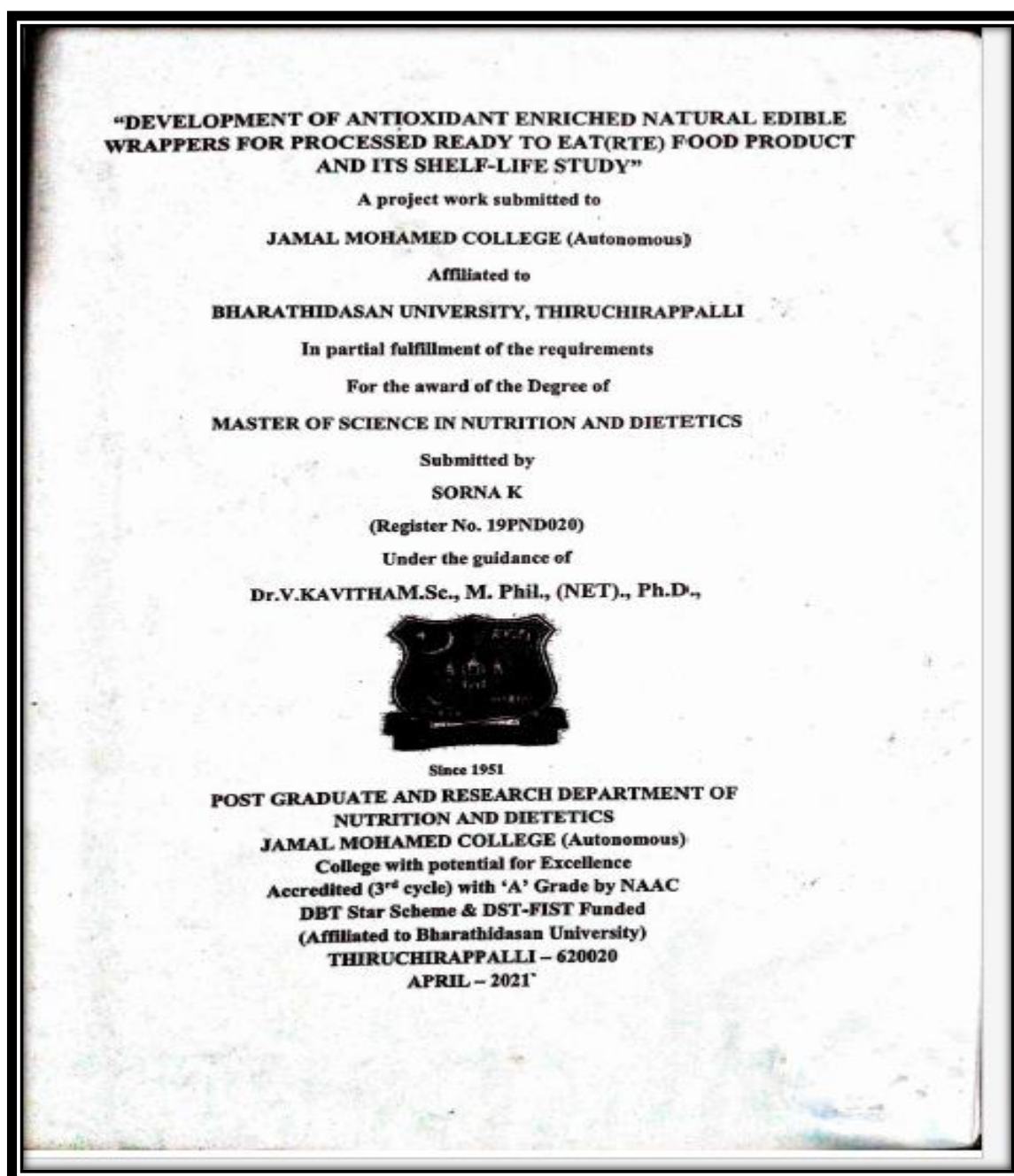
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DEPARTMENT OF NUTRITION & DIETETICS





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2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

**ANTIOXIDANT ACTIVITY, PHYTOCHEMICAL AND NUTRIENT
COMPOSITION OF VADANARAYANAN (*DELONIX ELATA*) LEAF
POWDER INCORPORATED FOOD PRODUCTS**

A Project Work submitted to

JAMAL MOHAMED COLLEGE (AUTONOMOUS)

Affiliated to

BHARATHIDASAN UNIVERSITY, TIRUCHIRAPPALLI

In partial fulfillment of the requirements

For the award of the degree of

MASTER OF SCIENCE IN NUTRITION AND DIETETICS

Submitted by

T.VIJITHA

(Reg. No.19PND027)

Under the guidance of

Dr. M. ANGEL, M.SC., PGDN&D., PGDCA., Ph.D., (NET)



PG AND RESEARCH DEPARTMENT OF NUTRITION AND DIETETICS

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Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

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DEPARTMENT OF MATHEMATICS

(iii) Department of Mathematics

Group I Title of the Project

Use of pert network analysis in project management problems

Name of the Mentor : Dr. A. Nagoor Gani

Students Name : Arivusudar P, Reg No. 18UMA003
Chandru L, Reg No. 18UMA006
Deva P, Reg No. 18UMA008
Gobi B, Reg No. 18UMA011
Gopinath S, Reg No. 18UMA015
Vendhan S S, Reg No. 18UMA061

Abstract

Pert is a method of analyzing the tasks involved in completing a given project, especially the time needed to complete each task, and to identify the minimum time needed to complete the total project. In this project, we incorporate uncertainty by making it possible to schedule a project while not knowing precisely the details and durations of all the activities. It is more of an event-oriented technique rather than start-and completion-oriented, and is used more in these projects where time is the major factor rather than cost, it will be applied on very large-scale, one-time, complex and non-routine infrastructure.

Group II Title of the Project

Study on advantages and disadvantages of online classes

Name of the Mentor : Dr. A. Mohamed Ismayil

Students Name : Dhameem Ansari M, Reg No. 18UMA009
Dhanumalayan K S, Reg No. 18UMA010
Harishraj A, Reg No. 18UMA017
Janarthanan V, Reg No. 18UMA019
Prithiviraj R, Reg No. 18UMA045
Riyas Ahamed B, Reg No. 18UMA048

Abstract

Due to COVID-19 many of the countries prefer to teach the school and college lessons to the students in online mode. In this 21st century, most of the foreign universities offer the online courses to all over the universe. Even in Indian Universities like IIT Chennai offers online programmes. IIT Chennai offers online courses on date science. Government of India offers more than 1000 courses for Arts, Science and Engineering students through Swayam-NPTEL portal. In this situation, we analyse the advantages and disadvantages of online learning and how the online classes useful to the learners.



Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

Group III Title of the Project

Statistical survey and analysis on higher education (Using SPSS)

Name of the Mentor : Dr. R. Jahir Hussain

Students Name : Arun Kishore Kumar C, Reg No. 18UMA005
Gokula Kannan S, Reg No. 18UMA014
Hafiz Ahamed S, Reg No. 18UMA016
King Ahmed Patel A, Reg No. 18UMA021
Mahadeen Mohamed J, Reg No. 18UMA023
Yahiya T, Reg No. 18UMA063

Abstract

Students choosing mathematics course in higher studies decreased in recent period. so in this project studied to assess the survey conducted among school students and analysis the collected data using SPSS.

Group IV Title of the Project

A study on the contribution of eigen values and eigen vectors in google search engine and some real time applications

Name of the Mentor : Dr. M. Mohammed Jabarulla

Students Name : Mohamed Aashick J, Reg No. 18UMA005
Mohamed Subiyan R, Reg No. 18UMA034
Roshan Akthar U, Reg No. 18UMA049
Sathish B, Reg No. 18UMA052
Senthooran E, Reg No. 18UMA054
Mohamed Ashraf S, Reg No. 18UMA065

Abstract

In this project we are discussed about Eigen values and Eigen vectors, solved numerical problem. And also discussed the contribution of Eigen values and Eigen vectors in the Google search engine and some real time applications like communication system, facial recognition, construction of bridges, Schrödinger equation, principle of component analysis and vibration analysis.



Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

Group V Title of the Project

A study on covid-19 infections in Trichy using mathematical modelling

Name of the Mentor : Dr. S. Mohamed Yusuff Ansari

Students Name : Aasim Al Kareem M, Reg No. 18UMA001
Jaya Karthikeyan R, Reg No. 18UMA020
Mohamed Ashick S, Reg No. 18UMA028
Sajith Ali S, Reg No. 18UMA033
Mohamed Umar Farook S, Reg No. 18UMA035
Mohammed Yousuf K, Reg No. 18UMA037

Abstract

The main focus of this study is to propose conceptual model for the COVID-19 outbreak at Trichy city in Tamilnadu State, without the consideration of individual behavioral reaction and governmental action, e.g. travel restriction, hospitalization and quarantine. The model is concise in structure and it successfully captures the course of Covid-19 outbreak, and thus sheds light on understanding the trends of the outbreak by building SIS model.

Group VI Title of the Project

Balancing chemical equations using linear Algebra (An Interdisciplinary with Chemistry Department)

Name of the Mentor : Mr. N. Mohamed Thoiyab

Students Name : Jameer Basha B, Reg No. 18UMA018
Muhammad Jameel S, Reg No. 18UMA039
Nandha Kumar S, Reg No. 18UMA042
Reevanth M, Reg No. 18UMA047
Sanjeevi R, Reg No. 18UMA051
Zavith Hussain N, Reg No. 18UMA064

Abstract

This project describes a procedure employing Gaussian elimination method in linear algebra to balance chemical equations from easy to relatively complex chemical reactions. This result satisfies the law of conservation of matter and confirms that there is no contradiction to the existing ways of balancing chemical equations.



Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

Group VII Title of the Project

Application of matrices in cryptography

Name of the Mentor : Dr. A. Prasanna

Students Name : Chithiraranjan R, Reg No. 18UMA007
Gokul D, Reg No. 18UMA013
Naveen K, Reg No. 18UMA043
Praveen N, Reg No. 18UMA044
Selvakumar S, Reg No. 18UMA053
Sukumaran R, Reg No. 18UMA058

Abstract

The study embarks to learn and apply matrices in cryptography to ensure the secure communication between the sender and receiver

Group VIII Title of the Project

Application of matrices in the analysis of red blood cell production (An Interdisciplinary with Zoology Department)

Name of the Mentor : Mr. S. Masoothu

Students Name : Rajesh R, Reg No. 18UMA046
Rubeshkumar R, Reg No. 18UMA050
R.M.Shahul Hameed, Reg No. 18UMA055
Sivakumar R, Reg No. 18UMA056
Sureshkumar S, Reg No. 18UMA059
Vengatesh R, Reg No. 18UMA062

Abstract

The main focus of the project is to explore the relevant issues of Red Blood Cells, its life cycle, creation, RBC count and Blood diseases. Using diagonalisation method in matrix theory the production of Red Blood Cells is analyzed. The number of Red Blood Cells in the blood stream on $(n+1)$ th day is found out using the data about Red Blood Cells count on n th day.



Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

DEPARTMENT OF PHYSICS

(iv) Department of Physics

Group I Title of the Project

Determination of refractive index of different liquids using hollow prism.

Name of the Mentor : Dr. A. Ishaq Ahamed

Students Name : N. Abdul Hameed, Reg No. 18UPH001
A. Abdul Musharaf, Reg No. 18UPH002
A. Abrar Ahmed, Reg No. 18UPH003

Abstract

Refractive index of water has been carefully measured by many researchers for over a century. The description of the propagation, reflection, and absorption of light in water requires the knowledge of the dependence of its refractive index as a function of the wavelength under different physical (but also chemical) conditions such as pressure or temperature. Mainly, optical experiments carried out in water are often used as references for other liquids. Also, knowledge of the refractive index of water itself can be used as an in situ probe for finding out other physical parameters of the liquid such as its density or pressure. In our project study we have measured the refractive indices of liquids using hollow prism. However as the work of this nature requires enormous time for the study of molecular behaviours, experimentation and measurements, we referred to theories of molecular interactions and the works of earlier researchers such as Henryk Eisenberg, Nir et al. and have selectively used the data obtained/calculated by earlier people such as Dorsey, Tilton and Taylor, Painter et al. to derive the conclusions we had set out at the beginning. Some of these are the calculation of the molar refraction, electronic polarizability, specific refraction, the variations of the refractive index with pressure and temperature, Debye's dispersion coefficients and the variation of the refractive index with frequencies/wavelengths that lead to the concept of dispersion of water or other liquids.

Group II Title of the Project

Design and Development of Home Appliances–Solar Water Heater

Name of the Mentor : Dr. N. Peer Mohamed Sathik

Students Name : M.N. Ameer Hamsha, Reg No. 18UPH004
A. Amuthan, Reg No. 18UPH005

K. Azarudeen, Reg No. 18UPH006

Abstract

In a solar water heating system, the most frequently met difficulty is to obtain the hot water at a required temperature continuously due to variation in the incident solar radiation over a day or even in the different seasons of the year. This work deals with the designing of a control mechanism based on the sensed temperatures, along with the water flow rates from the two systems, primary (hot water source) and secondary (cold water source), which are continuously monitored. This mechanism proposes a solution to the problem of obtaining warm water at a desired temperature and fulfilling the temperature specific activities as it estimates the amount of cold water to be supplied



Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

from the secondary source. Further, the energy consumption can also be reduced by implementing a hybrid mode (using a solar water heater and an electric heater), where the water will be preheated by the solar water heater. As a result, the electricity expenses of the electric heater can be curtailed.

Group III Title of the Project:

Design and Development of Home Appliances–Solar Cooker

Name of the Mentor : Dr. R. Radhakrishnan

Students Name : V. Chinnasamy, Reg No. 18UPH007
D. Deepan, Reg No. 18UPH008
P. Devak Kumar, Reg No. 18UPH009

Abstract

Alternate source of energy is always a green approach of energy consumption, in the time of crises of energy and global warming. Use of solar energy for cooking is better solution, but still not established as user friendliness and economic aspect. Food is the basic need of human being. Food can be cooked with conventional fuels like wood, cow-dung, kerosene, Liquid Petroleum Gas (LPG) and electricity. Solar cooker is clean and eco-friendly energy device for cooking. There are large number of solar cookers designed and developed by the scientists and researchers all over the world but still the utilization of solar cooker is not sufficient. There are many reasons for the insufficient uses of solar cooker like, its bulky size, heavy weight, lack of open place, slow cooking, fixed timing for cooking, less awareness etc. In this project, different solar cookers like solar panel cooker, solar parabolic cooker, solar box type cooker and hybrid solar cooker etc. are discussed in detail. Still lot of modifications are required to make the solar cooker user friendly, lighter in weight, smaller in size and still economic. Development of a photovoltaic and thermal hybrid solar cooker has started a new horizon in the field of solar cookers as the cooking is faster than conventional box type solar cooker and can be used at users convenient time. The cooker was converted into solar dryer by small modification and was used for drying vegetables. Still lots of scopes are there for research in solar cooker especially for small size domestic solar cookers.

Group IV Title of the Project

Design and Development of Home Appliances–Solar Distillation

Name of the Mentor : Capt. F.S. Muzammil

Students Name : Arasu Durai, Reg No. 18UPH010
E. Karthikeyan, Reg No. 18UPH011
D. Mahendran, Reg No. 18UPH012

Abstract

Solar distillation is a technology for producing potable water from brackish and underground water of low-quality at low cost. It can reduce water-scarcity problems together with other water purification technologies. Solar distillation is analogous to natural hydrological cycle. It uses an apparatus called a solar still in which water is evaporated using solar energy, a form of renewable energy, and collected as distillate after condensation of the vapor. It effectively produces distilled water after removal of impurities. The major advantage of this is the use of solar energy instead of



Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

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Group VI Title of the Project

Determination of Dielectric Constant for Liquids

Name of the Mentor : Mr. J. Umar Malik

Students Name : K.S. Mohamed Mujjamil, Reg No. 18UPH017
A. Mohamed Nousath, Reg No. 18UPH018
S.Mohammed Eliyas, Reg No. 18UPH019
A. Moideen Mohamed Hussain, Reg No. 18UPH020

Abstract

Dielectric liquids are critical for the proper operation of electrical equipment. Power equipment cannot operate without energy loss, which leads to rises in temperature. It is essential to dissipate the heat generated by the energy losses, especially under high load conditions. Failing to do so results in premature aging, and ultimately to failure of the equipment. Heat dissipation can be achieved by circulating certain liquids, which also ensure electrical insulation of energized conductors. The insulating fluids market is therefore likely to be dominated by liquids, leaving to gases limited applications in power equipment. In our present work, we are interested in certain liquids that are used commonly in Physics laboratory for many other purposes. We tried to find their dielectric values and their probable place of application. We zeroed in carbon tetra chloride, acetone and ethyl alcohol. The experiment has been done in our PG laboratory using an instrument that was brought under DBT scheme. Using the formula already available in the literature, we found their dielectric values and are readily agree well with the literature value.

Group VII Title of the Project

Design and Development of Home Appliances – Solar Pumping

Name of the Mentor : Dr. J. Ebenezar

Students Name : N. Muhilan, Reg No. 18UPH021
G. Nallasekaran, Reg No. 18UPH022
S. Nasarul haq Al Hassan, Reg No. 18UPH023
J. Nazeemdeen, Reg No. 18UPH024

Abstract

Agricultural technology is changing rapidly. Farm machinery, farm building and production facilities are constantly being improved. Agricultural applications suitable for photovoltaic (PV) solutions are numerous. These applications are a mix of individual installations and systems installed by utility companies when they have found that a PV solution is the best solution for remote agricultural needs such as water pumping for crops or livestock. A solar powered water pumping system is made up of two basic components such as PV panels and pumps. A PV panel is the solar cell. Each solar cell has two or more specially prepared layers of semiconductor material that produce direct current (DC) electricity when exposed to light. This DC current is collected by the wiring in the panel. It is then supplied either to a DC pump or AC pump (after conversion), which in turn pumps water whenever the sun shines using the pump. Thus, the present project work is to design, development and mechanism of home appliances for solar pumping system and its advantages.



Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

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Group VIII Title of the Project

Design and Development of Home Appliances – Solar Dryer

Name of the Mentor : Mr. A. Abbas Manthiri

Students Name : M. Periyasamy, Reg No. 18UPH025
K. Rinoskhan, Reg No. 18UPH026
G. Rishiikowsike, Reg No. 18UPH027
M. Santhosh, Reg No. 18UPH029

Abstract

The solar drying system utilizes solar energy to heat up air and to dry any food substance loaded, which is beneficial in reducing wastage of agricultural product and helps in preservation of agricultural product. Based on the limitations of the natural sun drying e.g. exposure to direct sunlight, liability to pests and rodents lack of proper monitoring, and the escalated cost of the mechanical dryer, a solar is therefore developed to cater for this limitation. This project presents the design and construction of a domestic passive solar dryer. The dryer is composed of solar collector (air heater) and a solar drying chamber constraining rack of three cloth (net) trays both being integrated together. The air allowed in through air inlet is heated up in the solar collector and channelled through the drying chamber where it is utilized in drying. The design was based on the geographical location which is Abeokuta and meteorological data were obtained for proper design specification. The dimensions of the dryer is 94cm x 45cm x 101cm / 20cm (length x width x height). Locally available material were used for the construction, chiefly comprising of wood (gmelina), glass, aluminium metal sheet, copper and net cloth for the trays. The optimum temperature of the dryer is 50.50 °C with a corresponding ambient temperature of 34.50 °C. The moisture content removal of 43.2% and 40.6% in maize and plantain respectively using the solar dryer was achieved as against 28.2% and 27.89% in maize and plantain using the sun drying method and indication 15.0% and 12.71% difference respectively, the rapid rate of drying in the dryer reveals its ability to dry food items reasonable rapidly to a safe moisture.

Group IX Title of the Project

Design and Development of Home Appliances – Solar Photovoltaic Cell

Name of the Mentor : Dr.A.S. Haja Hameed

Students Name : P.Sarath Eswar, Reg No. 18UPH030
R. Sathish Kumar, Reg No. 18UPH031
K. Sheik AhamedImthiyas, Reg No. 18UPH032
K. Sudharsan, Reg No. 18UPH033

Abstract

Single/Mono-Crystalline Silicon Solar Cell, Polycrystalline Silicon Solar Cell (Poly-Si or Mc-Si), Second Generation Solar Cells—Thin Film Solar Cells, Amorphous Silicon and Cadmium Telluride (CdTe) Thin Film Solar Cells, Copper Indium Gallium Di-Selenide (CIGS) Solar Cells, Nano crystal based solar cells, Polymer based solar cells, Dye sensitized solar cells and Concentrated solar cells etc., can increase the efficiency up to 31%. A new design with the fusion of solar thermal energy and thermoelectric energy conversion using Seebeck effect is one of the remarkable technologies, which have great potential to play a significant role in the energy requirements in the near future. The solar parabolic dish concentrator and Thermo-electric generator modules (TEGs) are used in order to increase the



Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

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efficiency of the cell. Here, the solar parabolic dish concentrator concentrates the solar heat energy to create hot-end whereas cold- end temperature is kept down by means of water flow. A parabolic dish concentrator consisting of plane mirrors concentrates solar heat to the aluminum receiver, which has two sides one is hot side and another is cold side. Thermo-electric generator modules (TEGs) consist of bismuth telluride (Bi_2Te_3) semiconductor. Solar thermal energy collecting system comprising of parabolic dish concentrator to achieve a temperature gradient of about 270°C between hot and cold side of the receiver which was expected to produce 14 W per thermo- electric generator module. The two-axis linear solar tracking system is used to increase the overall efficiency of the system. Multiple modules can be used to generate power up to 500 W and the efficiency can be maintained by keeping the temperature difference. The technology which uses both solar thermal energy and thermo-electric energy has a great potential to play a vital role in the eradication of energy crisis.

Group X Title of the Project

Assembling of HAM Radio Transmitter

Name of the Mentor : Dr. S. Abbas Manthiri

Students Name : S. Surya Prakash, Reg No. 18UPH034
K. Surya Bharathiv, Reg No. 18UPH036
S. Syed Mohamed Haneef, Reg No. 18UPH037
M. Umar, Reg No. 18UPH038

Abstract

Ham radio is both a hobby and a service that uses various types of radio communications equipment to communicate with other radio amateurs for public service, recreation and self-training. A participant is called an amateur radio operator, or a ham. Amateur radio operators have been around since the beginning of radio, but the Amateur Radio Service did not come along until the advent of a licensing body. Amateur radio operators enjoy personal wireless communications with each other and are able to support their communities with emergency and disaster communications if necessary, while increasing their personal knowledge of electronics and radio theory. An estimated six million people throughout the world are regularly involved with amateur radio. Millions of amateur radio operators communicate daily with each other directly or through ad hoc relay systems and amateur satellites. Amateur radio operators have traditionally been recognized as an important part of the radio community. With regard to the spectrum use, all frequencies are shared or common to all amateur radio operators and no frequency is assigned for the exclusive use of any amateur station. Amateur radio operators cooperate in selecting transmitting channels to make the most effective use of the allocated frequencies. Amateurs do not broadcast their transmissions; they have two-way communications with other amateurs. In fact, it is illegal for amateurs to broadcast information for the general public on the amateur radio bands or communicate with non-amateurs.



Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

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DEPARTMENT OF ZOOLOGY

Department of Zoology

Group I Title of the Project

Evaluation of radioactivity in various building materials.

Name of the Mentor : Dr. R. Krishnamoorthy

Students Name : S. Arun Kumar, Reg No. 18UA5208
M.Abdul Basith, Reg No. 18UA5201
S. Chindhan, Reg No. 18UA5245
R. Irshath Ahamed, Reg No. 18UA5212
Muhammed Zinan, Reg No. 18UA5244
A.S. Abdul Muthalif Asfaq, Reg No. 18UPH048
V. Sakthi, Reg No. 18UPH049

Abstract

The high radiation levels are due to the presence of large quantities of naturally occurring radioactive minerals in the rocks, soils, sediments, etc. Among the various geological formations, sediments plays a predominant role in aquatic radioecology and plays a role in accumulating and transporting contaminants within the geographic area. It is the basic indicator of radiological contamination in the environment. The terrestrial gamma radiation and gross-radioactivity concentration were investigated in various buildings materials collected in Tiruchirappalli. Terrestrial gamma radiation exposure doses (excluding cosmic radiation) were measured using a Plastic Scintillation Counter, a rugged, light weight and portable instrument designed for radiometric, geophysical and environmental reconnaissance survey was used to measure terrestrial gamma radiation level. The terrestrial gamma level was found to be $05\mu\text{R/h}$ in sand, $06\mu\text{R/h}$ in mineral sand, $07\mu\text{R/h}$ in brick, and in cement respectively. The gross alpha radioactivity of buildings material was performed using Radiation Counting System (Nucleonix- RC 605A). The gross-alpha activity concentrations were found to be 1.834Bq/kg (sand), 0.458Bq/kg (mineral sand), 11.459Bq/kg (brick), and 8.25Bq/kg (cement) respectively.



Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

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Group II Title of the Project

Production of bio fertilizers from fish wastes available from fish market at Tiruchirappalli.

Name of the Mentor : Dr. M. Meeramoideen

Students Name : D.Jeevanandam, Reg No. 18UA5214
P.N. Afzal Ahamed, Reg No. 18UA5235
S. Abdul Basith, Reg No. 18UA5202
V.Parameshwaran, Reg No. 18UA5225
Noorul Ameen, Reg No. 18UA5241

Abstract

The fish consumption per person has doubled on a worldwide basis and hence the fishery waste on land has also increased. The discarding of fish waste creates environmental problems as well as disposal problems. The common practice of disposing the residue of the seafood market into natural open bodies of water and landfills has on odor problems, floating debris and visible surface slick, attractants of undesirable changes in the environment and nearby people. Conventional methods for reutilization of fish waste are animal feeds, and composting fertilizer. Composting fish waste is a relatively new and an environmentally sound alternative to disposing of fish waste. It is economical, odorless and a biological beneficial practice for sea food operation. The reutilization of fish waste as liquid fertilizer was particularly economical alternative at present. Fish compost can be prepared with fish wastes such as tissues, bones and scales mixed with three different substrates such as sugarcane juice, jangery and Curd in 1:0.1 ratio. Fish compost characters such as odor, physical state, weight, pH and protein content were estimated. After 48 days, bad odor gradually turned into relatively odor less in fish waste mixed with jangery and sugarcane juice. The bone and scales of fish became degraded and turned into liquid state.

Group III Title of the Project

Evaluation of anti-mosquito larvicidal activity of plant extracts

Name of the Mentor : Dr. P. Rajasekar

Students Name : Z. Ajeez Ahamed, Reg No. 18UA5203
S. Manoj, Reg No. 18UA5219
K. Mohamed Riyas Khan, Reg No. 18UA5221
S. Mohamed Sarif, Reg No. 18UA5222
G.Thamistheen, Reg No. 18UA5229

Abstract

The mosquito larvicidal activity of plant extracts was evaluated using hexane, chloroform, ethyl acetate, acetone, and methanol leaf, flower and seed extracts of the Poncirustrifoliata(Kamala), Murrayapaniculata (Kattukariyilai), Citrus bergamia(Narandam), Aegle marmelos(Vilvam) and Limonia acidissima(wood-apple). The results showed that the crude hexane, benzene, chloroform and methanol solvent extracts of leaf of P. trifoliata were effective against the larvae of two important vector mosquitoes, viz. An. stephensi and Ae. aegypti. The results suggest that the effective plant extracts have the potential to be used as an ideal ecofriendly approach for the control of disease vectors. This study provides the first report on the larvicidal activity of extracts of different mosquitoes.



Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

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Group IV Title of the Project

Impact of polluted water (tributaries of river Cauvery) on macrofaunal diversity

Name of the Mentor : Dr. K. Prabakar

Students Name : A. Mohamed Yunus, Reg No. 18UA5223
V.Kamalesh, Reg No. 18UA5217
N. Balaji, Reg No. 18UA5209
S. Shahul Hameed, Reg No. 18UA5227
Muhammed Saeed, Reg No. 18UA5243

Abstract

Rivers are important ecosystems that are integrated into biogeochemical cycles and constitute an essential resource for numerous human uses. However, the assessment of the biological diversity and composition of microbial communities found in rivers remains incomplete, the present study analyzed the microbial diversity of the planktonic and sediment populations in a river in Tiruchirappalli that is exposed to severe pollution. Six water and six sediment samples were analysed. The dominant bacterial phyla in both sediment and water were the Proteobacteria, followed by Bacteroidetes and Actinobacteria in the water column and by Chloroflexi and Acidobacteria in the sediment. Biological diversity appeared to be greatly decreased by environmental pollution, whereas the microbial community structure was variable across the analyzed transect. Moreover, a narrow relationship between industrial and urban sources of contamination and the bacterial genera detected at these sites has been observed. A variety of potentially pathogenic bacteria was detected, including Klebsiella, Treponema, Faecalibacterium and Enterococcus, indicating that the river might pose a substantial risk to public health.

Group V Title of the Project

Impact of polluted water (tributaries of river Cauvery) on macrofaunal diversity

Name of the Mentor : Dr. A. Sadiq Bukhari

Students Name : J. Umar Sherif, Reg No. 18UA5230
M.Khaleefa, Reg No. 18UA5218
M.Mohamed Asip, Reg No. 18UA5220
B. Gunaseelan, Reg No. 18UA5210
A. Arief Ahmed, Reg No. 18UA5205

Abstract

In the present study, characterization of borewell water showed the type of pollution were studied at the municipal solid waste dumping yard, located in and around Tiruchirappalli City, Tamilnadu. The composition was sampled at four different locations at the landfill. Groundwater samples were collected from ten bore well hand pumps at various radial distances from the boundary of the dumping yard. The objective of this paper is to evaluate the bore well water pollution due to the landfill leachate. The groundwater physicochemical parameters were characterized. In the present study the concentration of heavy metals in leachate samples were in the following sequential order $Fe < Mn < Zn < Cu < Cr < Cd < Pb < Ni$. The general observation is that the water samples collected from bore wells clearly show that the nearest water sources are polluted more than the ones farther away. The study has revealed that the ground



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water quality does not conform to the drinking water quality standards as per Bureau of Indian Standards. Therefore, urgency for leachate treatment at this site is recommended to prevent further contamination of groundwater.

Group VI Title of the Project

Vermicompost preparation

Name of the Mentor : Dr. S. Mohamed Hussain

Students Name : R. Nisar, Reg No. 18UA5224
K. Ragavan, Reg No. 18UA5226
H. Kaiyasudeen, Reg No. 18UA5215
P. Kalaiselvan, Reg No. 18UA5216
R. Vishnupriyan, Reg No. 18UA5236

Abstract

Vermicomposting is a controlled, aerobic, biological process and able to convert biodegradable humus like organic substances and suitable for the application of soil amendment. An Organic solid waste collected from local vegetable market and cow dung used for vermicompost preparation whereas cow dung alone used as control. By standard procedures, the two different earthworms *E. eugenia* and *E. fetida* were inoculated into the pits at the end of 45th day the compost was collected. Vermicompost were analyzed for their physico chemical properties. For the plant growth activities, the compost was applied to the brinjal plants cultivated in large cement tanks. Various field parameters were analysed. As a conclusion, this study showed that the two different earthworms producing vermicompost application yields good results in egg plant. Among the two earthworm, *E. fetida* showed significant results on improved soil quality and plant yield parameters.

Group VII Title of the Project

Predictive distribution of Insects and Birds in Cauvery river bank using Mathematical modeling

Name of the Mentor : Dr. M. Salahudeen

Students Name : A. Arjun Raj, Reg No. 18UA5206
A.C. Venuprasanth, 18UA5233
S.P. Akilan, Reg No. 18UA5204
M. Gunaseelan, Reg No. 18UA5211
K.T. Muhammed Amal, Reg No. 18UA5238
T. Salavudeen, Reg No. 18UA5232

Abstract

Biodiversity loss is a global problem, conserving habitat for species of insects and Birds is uncommon and generally of low priority, although there are exceptions. They also play a major role in maintenance of ecosystem services. In the present study we have focused on distribution of Insects and Birds in the cauvery river bank. Species are surveyed based on Transect method. Totally 25 species birds and 40 insect species were documented. Curve fitting analysis was done to predict future distribution of birds and insects in the study site. Red wattled lapwing is the common bird present in the all three transects. The future availability of this bird will become quite normal. Further, eco restorations should be planned in the cauvery river banks to reduce threats to the birds and insects in the study areas.



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2.3 Teaching – Learning Process

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(2019-2020)

DEPARTMENT OF BIOTECHNOLOGY

***Agrobacterium Mediated In-planta seed Transformation of
Bitter gourd ([Momordica charantia (L.)]***

Dissertation submitted to

JAMAL MOHAMED COLLEGE (AUTONOMOUS)

In Partial Fulfillment of the Requirements for the award of the Degree of
MASTER OF SCIENCE IN BIOTECHNOLOGY

By

R. RAMKUMAR

Reg. No. 17PBT001

Under the Guidance of

Mr. K. GOBALAN, M.Sc., PGDCA., M.Phil.,

Assistant Professor



PG AND RESEARCH DEPARTMENT OF BIOTECHNOLOGY

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April 2019



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Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

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**A PILOT STUDY ON ESRI GENETIC POLYMORPHISM IN
BREAST CANCER**

Dissertation submitted to
JAMAL MOHAMED COLLEGE (AUTONOMOUS)
In Partial Fulfillment of the Requirements for the award of the Degree of
MASTER OF SCIENCE IN BIOTECHNOLOGY

By
M. ALISHAH BE
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PG AND RESEARCH DEPARTMENT OF BIOTECHNOLOGY

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April 2019



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Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

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***Agrobacterium mediated genetic transformation in
Soybean [*Glycine max* (L.) Merrill]***

Dissertation submitted to
JAMAL MOHAMED COLLEGE (AUTONOMOUS)
In Partial Fulfillment of the Requirements for the award of the Degree of
MASTER OF SCIENCE IN BIOTECHNOLOGY

By

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PG AND RESEARCH DEPARTMENT OF BIOTECHNOLOGY

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DEPARTMENT OF CHEMISTRY

INHIBITION OF CORROSION OF MILD STEEL IN 3.5 % NaCl BY 1-MORPHOLINO-1-(p-TOLYL) PENTAN-3-ONE

A dissertation submitted to the

JAMAL MOHAMED COLLEGE (AUTONOMOUS)

in partial fulfillment of the requirement

for the award of the Degree of

MASTER OF SCIENCE IN CHEMISTRY

Submitted by

Mr. M. KIRAN

Reg. No: 17PCH009

Under the guidance of

Dr. M. ANWAR SATHIQ



Since - 1951

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Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

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**ANTI-MICROBIAL INVESTIGATION OF *p*-SEMIDINE BASED
TERPOLYMERIC POLYCHELATE**

A Project submitted to

JAMAL MOHAMED COLLEGE (Autonomous)

Affiliated to the

Bharathidasan University, Tiruchirappalli-24

*in partial fulfillment of the requirements
for the award of the Degree of*

MASTER OF SCIENCE IN CHEMISTRY

by

**N. BARATHI MURUGAN
(Register No.: 17PCH030)**

under the guidance of

Dr. N. MUJAFAR KANI



Since 1951

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MARCH – 2019



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Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

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**SYNTHESIS, SPECTRAL CHARACTERISATION, *In-Silico* AND
In-Vitro ANTIMICROBIAL STUDIES OF
AN AZOMETHINE COMPOUND**

A project work submitted to the

**JAMAL MOHAMED COLLEGE
(Autonomous)**

Affiliated to the

BHARATHIDASAN UNIVERSITY, TIRUCHIRAPPALLI-24

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

MASTER OF SCIENCE IN CHEMISTRY

Submitted By

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College with Potential for Excellence

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(Affiliated to Bharathidasan University)

TIRUCHIRAPPALLI-620 020

MARCH-2019



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TIRUCHIRAPPALLI – 620 020

NAAC - SSR IV CYCLE

Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

**SYNTHESIS, SPECTRAL CHARACTERIZATION AND
ANTIMICROBIAL SCREENING OF AN AZOMETHINE
COMPOUND**

A project work submitted to the

**JAMAL MOHAMED COLLEGE
(Autonomous)**

Affiliated to the
BHARATHIDASAN UNIVERSITY, TIRUCHIRAPPALLI-24

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

MASTER OF SCIENCE IN CHEMISTRY

Submitted By

Mr. S. NANTHAKUMAR

(Reg. No: 17PCH046)

Under the Guidance of

Dr. F.M. MASHOOD AHAMED



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NAAC - SSR IV CYCLE

Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

CHELATING TERPOLYMER RESIN: SYNTHESIS, CHARACTERISATION AND APPLICATION

A Project work submitted to

JAMAL MOHAMED COLLEGE (Autonomous)

Affiliated to the

BHARATHIDASAN UNIVERSITY, TIRUCHIRAPPALLI-24

in partial fulfillment of the requirements

for the award of the degree of

MASTER OF SCIENCE IN CHEMISTRY

Submitted by

V.K. HARIKRISHNAN

(Register No.:17PCH058)

Under the guidance of

Dr. N. MUJAFARKANI



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Tiruchirappalli-620 020

MARCH – 2019



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NAAC - SSR IV CYCLE

Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

**SYNTHESIS AND IR STUDY OF NOVEL HETEROCYCLIC
ORGANIC COMPOUND**

**A project work submitted to the
JAMAL MOHAMED COLLEGE (Autonomous)
Affiliated to the
BHARATHIDASAN UNIVERSITY, TIRUCHIRAPPALLI-24
in partial fulfillment of the requirement for the award of the degree of
MASTER OF SCIENCE IN CHEMISTRY**

**Submitted By
Mr. T. SELVAGANAPATHI
(Reg. No: 17PCH052)**

**Under the Guidance of
Dr. S. MOHAMED RABEEK M.Sc., M.Phil., Ph.D.**



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TIRUCHIRAPPALLI-620 020, INDIA.**

March-2019



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NAAC - SSR IV CYCLE

Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

**CORROSION INHIBITION OF MILD STEEL IN ACID MEDIUM
BY *CORDIA SEBESTENA* LEAVES EXTRACT**

A project work submitted to the

JAMAL MOHAMED COLLEGE (Autonomous)

affiliated to the

BHARATHIDASAN UNIVERSITY, Tiruchirappalli-20

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

MASTER OF SCIENCE IN CHEMISTRY

Submitted by,

A.HABEEBRAHMAN

(Reg. No.: 17PCH005)

Under the guidance of

Dr. K. RIAZ AHAMED, M.Sc., M.Phil., Ph.D.,



Since-1951

PG AND RESEARCH DEPARTMENT OF CHEMISTRY

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MARCH-2019



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NAAC - SSR IV CYCLE

Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

SYNTHESIS, CHARACTERIZATION AND BIOLOGICAL ACTIVITY OF
(2*E*)-1-(6-chloropyridin-3-yl)-3-(2-hydroxyphenyl)prop-2-en-1-one

A Dissertation Submitted to

JAMAL MOHAMED COLLEGE (Autonomous)

Affiliated to the Bharathidasan University, Tiruchirapalli

In partial fulfillment of the requirement

for the award of the Degree of

MASTER OF SCIENCE IN CHEMISTRY

Submitted by

NAGESHWARAN.D

(Reg. No: 17PCH020)

Under the guidance of

Dr. M. MOHAMED SIHABUDEEN



Since-1951

PG & RESEARCH DEPARTMENT OF CHEMISTRY

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MARCH-2019.



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NAAC - SSR IV CYCLE

Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

DEPARTMENT OF COMMERCE (SF - MEN)

An outlook of the Business Quiz Event



An On-stage view of the MIME Event



JAMAL MOHAMED COLLEGE (AUTONOMOUS)

(Affiliated to Bharathidasan University)

TIRUCHIRAPPALLI – 620 020

NAAC - SSR IV CYCLE

Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

**A STUDY ON CUSTOMERS' PERCEPTION TOWARDS DIGITAL MEDIA
MARKETING IN TRICHY TOWN**

A Project Report Submitted to the
JAMAL MOHAMED COLLEGE (AUTONOMOUS)
Affiliated to **BHARATHIDASAN UNIVERSITY**
TIRUCHIRAPPALLI -620020.

In partial fulfillment of the requirements
For the Award of the Degree of
MASTER OF COMMERCE
Submitted by
S.MOHAMED RIYAS
(Reg.No: 17PCO017)

Under the guidance of
DR. A.KHALEELUR RAHMAN,
M.Com., B.Ed., M.Phil., PGDCA., Ph.D.,
Associate Professor of Commerce



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PG AND RESEARCH DEPARTMENT OF COMMERCE
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TIRUCHIRAPPALLI-620020
MARCH-2019



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(Affiliated to Bharathidasan University)

TIRUCHIRAPPALLI – 620 020

NAAC - SSR IV CYCLE

Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

**A STUDY ON CONSUMER BEHAVIOUR TOWARDS
MOBILE NETWORK AMONG THE COLLEGE STUDENTS IN
TRICHY CITY**

Project Report submitted to the
JAMAL MOHAMED COLLEGE (Autonomous)
Affiliated to **Bharathidasan University, Tiruchirappalli**
In partial fulfilment of the requirements
For the award of the Degree of
MASTER OF COMMERCE

Submitted By
M. MADHANAGOPALAN
(Reg.No: 17PCO008)

Under the Guidance of
Dr. G.HADI MOHAMED,
M.com, M.Phil., MBA., Ph.D.,
Assistant Professor in Commerce



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MARCH – 2019



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NAAC - SSR IV CYCLE

Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

**A STUDY ON PASSENGER SATISFACTION OF
OMNI BUS SERVICE IN PARVEEN TRAVELS, TRICHY**

Project Report submitted to

JAMAL MOHAMED COLLEGE (Autonomous)

Affiliated to Bharathidasan University, Tiruchirappalli

In partial fulfilment of the requirements for the award of the Degree of

MASTER OF COMMERCE

Submitted By

A. ABDUL FAKRUDEEN

(Reg. No: 17PCO002)

Under the Guidance of

Dr. K. KHAJA MOHIDEEN, M.Com., M.Phil., M.B.A., Ph.D.,

Associate Professor



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TIRUCHIRAPPALLI-620 020

MARCH 2019



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TIRUCHIRAPPALLI – 620 020

NAAC - SSR IV CYCLE

Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

**A STUDY ON CONSUMER SATISFACTION OF LION
DATES IN TIRUCHIRAPPALLI TOWN**

A project Report Submitted to the
JAMAL MOHAMED COLLEGE (AUTONOMOUS)
Affiliated to Bharathidasan University
TIRUCHIRAPPALLI-620020.
In partial fulfilment of the requirements for the Award of the Degree of

MASTER OF COMMERCE

Submitted By
A.UBAYATHULLA
(Reg.No.17PCO032)

Under the guidance of
Dr. M. MARIMUTHU
M.Com., M.Phil., M.B.A., B.Ed., Ph.D., (NET)
Assistant professor of commerce



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**PG & RESEARCH DEPARTMENT OF COMMERCE
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MARCH – 2019



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(2018-2019)

DEPARTMENT OF BIOTECHNOLOGY

In vitro anti-inflammatory and GC-MS Studies on Flower extracts of
Gomphrena globosa (L.)

Dissertation submitted to

JAMAL MOHAMED COLLEGE (AUTONOMOUS)

In Partial Fulfillment of the requirement for the Degree of
MASTER OF SCIENCE IN BIOTECHNOLOGY

By

C.Ezhilarasi

Reg. No.16PBT004

Under the Guidance of

Dr. Y. Arsia Tarnam M.Sc., M.Phil., Ph.D.,

Assistant Professor



Since 1951

PG & RESEARCH DEPARTMENT OF BIOTECHNOLOGY

JAMAL MOHAMED COLLEGE (AUTONOMOUS)

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TIRUCHIRAPPALLI - 620 020

APRIL 2018



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NAAC - SSR IV CYCLE

Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

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*valuation of In-vitro toxicity of Disinfection Byproducts identified from
Cuddalore district Municipality Drinking water NOM removal by
Coagulation and Adsorption methods*

Dissertation submitted to

JAMAL MOHAMED COLLEGE (AUTONOMOUS)

In Partial Fulfillment of the requirement for the Degree of
MASTER OF SCIENCE IN BIOTECHNOLOGY

By

K. Irrfana Banu

Reg. No. 16PPBT006

Under the Guidance of

Dr. T. Nargis Begum M.Sc., M.Phil., Ph.D.,
Assistant Professor



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PG & RESEARCH DEPARTMENT OF BIOTECHNOLOGY
JAMAL MOHAMED COLLEGE (AUTONOMOUS)

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TIRUCHIRAPPALLI - 620 020

APRIL 2018



JAMAL MOHAMED COLLEGE (AUTONOMOUS)

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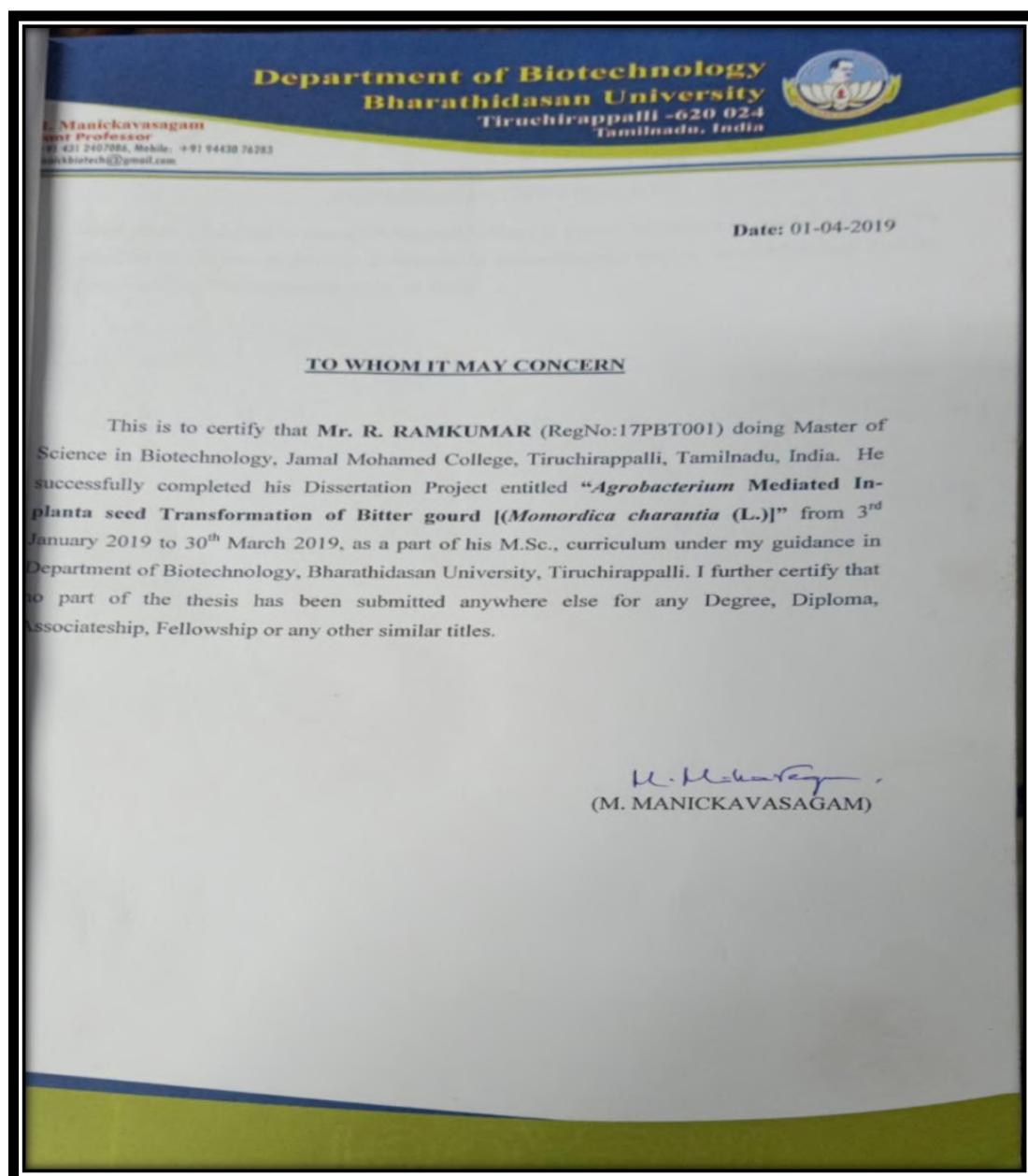
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Criterion II – Teaching-Learning and Evaluation

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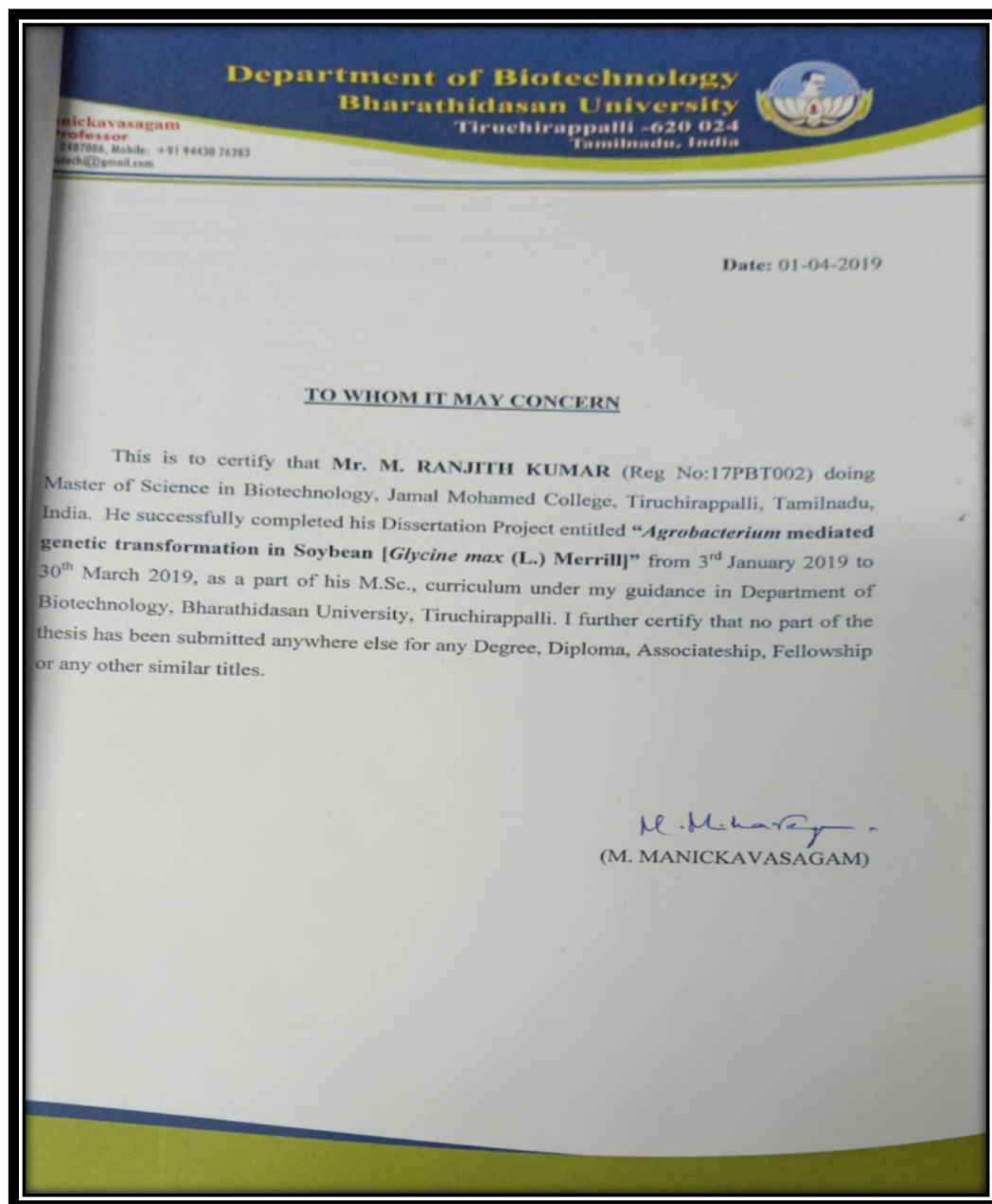
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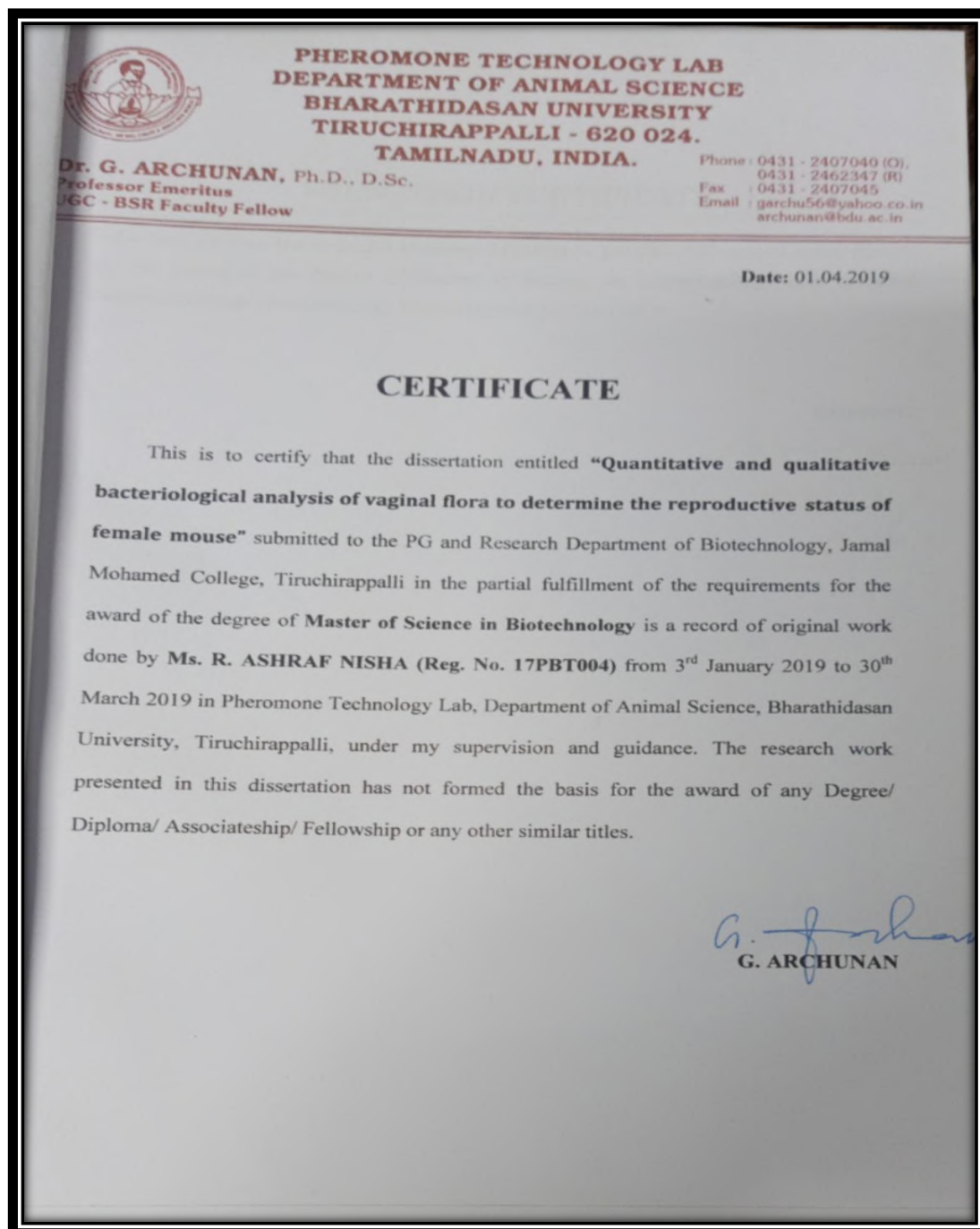
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39


BHARATHIDASAN UNIVERSITY
(Accredited by NAAC at 'A' Level)
Palkalaiperur, Tiruchirappalli – 620 024

Dr. N. THAJUDDIN
Professor & Head
Department of Microbiology
Ph. No: 2407082 - Fax: 2407045
DM/2019/39/Project/ 12 66
To
Ms. M.S. Shabeena Banu,
Ph.D., Research Scholar(Full Time),
Department of Biotechnology,
Jamal Mohamed College
Tiruchirappalli – 620 020.

முனைவர்.நா.தாஜுத்தீன்
பேராசிரியர் & துறை தலைவர்
நுண்ணுயிரியல் துறை
e-mail: nthaju2002@yahoo.com
Date: 06.05.2019

Dear Ms. M.S. Shabeena Banu,

With reference to your Letter dated 6th May 2019 request to carry out Project work at our Microbiology Department under the supervision of **Dr. N. Thajuddin, Professor & Head**. I am pleased to convey our acceptance for the same, subject to the following terms and conditions.

1. The Project duration will be for a period of six months starting from 10th June 2019.
2. The entire work to be carried out in the University Microbiology Department, therefore the student or Faculty from your college should not claim for authorship / IPR rights on the work carried out by you.
3. The department will not arrange accommodation for your stay for the project period.
4. The department will not pay any stipend or TA/DA for the project period.
5. You have to remit a non-refundable project fee of **Rs.5900/-(Including GST of 18%)** in the form of Demand draft in favour of 'The Registrar, Bharathidasan University, Tiruchirappalli.
6. It is necessary to maintain strict discipline within the University campus and if any undisciplined behaviour noticed during the period could cause the termination of the project.

In case, the terms and conditions are acceptable, you are invited to join in the Microbiology Department, Bharathidasan University by **10th June, 2019**. Kindly send the acceptance by an e.mail. Please note that you need to submit the duly filled in undertaking form signed by the HOD of your college, at the time of joining.

Sincerely,


(N. Thajuddin)
Encl: Undertaking form.



JAMAL MOHAMED COLLEGE (AUTONOMOUS)

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M.S. Shabeena Banu.,
Ph.D. Research Scholar (Full Time)
Department of Biotechnology
Jamal Mohamed College
Tiruchirappalli- 620020.

Date: 16.12.2019

Place : Trichy

To

Dr. Velu Rajesh Kannan,
Associate Professor & Head
Department of Microbiology
Bharathidasan University
Tiruchirappalli- 620 024.

Through

Dr. N. Thajuddin, M.Sc., M.Phil., Ph.D.,
Professor
Dept. of Microbiology
Bharathidasan University
Tiruchirappalli - 620 024.

Respected Sir

Sub: Requisition for Ph.D. work extension for the duration of six months.

With due respect, I hereby extend my earnest gratitude for permitting me to carry out my Ph.D. work on "**Lichen Associated Actinomyces**", at your laboratory for a period of six months (from 10.06.2019 to 10.12.2019). I hereby request you Sir, to grant me an extension period of another six months in order to complete my remaining part of Ph.D. work.

Thank you very much for your patience regarding this matter.

Thanking You

Signature of the Supervisor

Dr. N. THAJUDDIN
Professor
Department of Microbiology
Bharathidasan University
Tiruchirappalli - 620 024
Tamilnadu, India

Signature of the Head

Dr. Velu RAJESH KANNAN
Associate Professor & Head
Department of Microbiology
Bharathidasan University
Tiruchirappalli - 620 024.

Yours Sincerely

M.S. Shabeena Banu



JAMAL MOHAMED COLLEGE (AUTONOMOUS)

(Affiliated to Bharathidasan University)

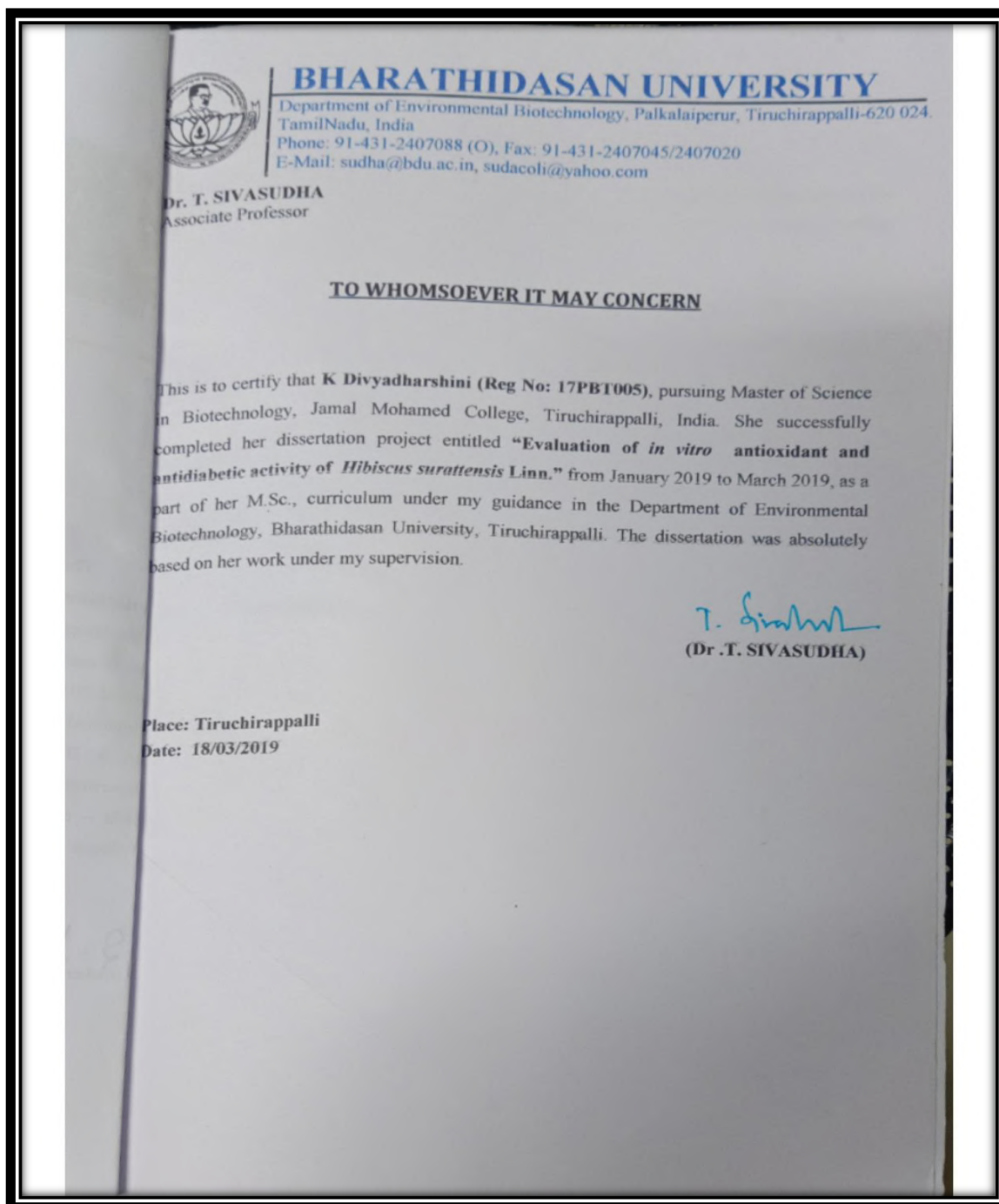
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DEPARTMENT OF CHEMISTRY

**STUDIES ON PHYSICO-CHEMICAL AND HEAVY METAL
ANALYSIS IN AND AROUND PONNAMARAVATHY TALUK
AT PUDUKKOTTAI DISTRICT -TAMI NADU**

A project work submitted to the

JAMAL MOHAMED COLLEGE (AUTONOMOUS)

Affiliated to the

BHARATHIDASAN UNIVERSITY, TIRUCHIRAPPALLI-20

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

MASTER OF SCIENCE IN CHEMISTRY

Submitted by

DHURGADEVILN

Reg. No: 16PCH055

Under the guidance of

Mrs. K.MAHMOODAH PARVEEN M.Sc., M .Ed.,



Since-1951

PG AND RESEARCH DEPARTMENT OF CHEMISTRY

JAMAL MOHAMED COLLEGE (Autonomous)

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Tiruchirappalli - 620 020

APRIL-2018



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NAAC - SSR IV CYCLE

Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

**STUDIES ON PHYSICO-CHEMICAL AND HEAVY METAL
ANALYSIS IN AND AROUND PONNAMARAVATHY TALUK
AT PUDUKKOTTAI DISTRICT -TAMI NADU**

A project work submitted to the

JAMAL MOHAMED COLLEGE (AUTONOMOUS)

Affiliated to the

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

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DHURGADEVILN

Reg. No: 16PCH055

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Mrs. K.MAHMOODAH PARVEEN M.Sc., M.Ed.,



Since-1951

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APRIL-2018



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TIRUCHIRAPPALLI – 620 020

NAAC - SSR IV CYCLE

Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

**POTENTIAL OF *GOSSYPIMUM BARBADENSE* AS A GREEN
CORROSION INHIBITOR AGAINST MILD STEEL IN HCl
MEDIUM**

A project work submitted to the

JAMAL MOHAMED COLLEGE (Autonomous)

affiliated to the

BHARATHIDASAN UNIVERSITY, Tiruchirappalli-20

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

MASTER OF SCIENCE IN CHEMISTRY

submitted by,

G. RAJESWARI

(Reg.No.: 16PCHO64)

under the guidance of

Mrs. B. ARIFA FARZANA, M.Sc., M.Phil.,



Since-1951

PG AND RESEARCH DEPARTMENT OF CHEMISTRY

JAMAL MOHAMED COLLEGE (Autonomous)

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Affiliated to Bharathidasan University

Tiruchirappalli- 620 020

April-2018



JAMAL MOHAMED COLLEGE (AUTONOMOUS)

(Affiliated to Bharathidasan University)

TIRUCHIRAPPALLI – 620 020

NAAC - SSR IV CYCLE

Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

SYNTHESIS, SPECTRAL CHARACTERIZATION AND ANTIMICROBIAL STUDIES OF 4-(isopropylbenzylidene)-3-(trifluoromethyl)aniline.

A project work submitted to the
JAMAL MOHAMED COLLEGE (Autonomous)

Affiliated to the
BIHARATHIDASAN UNIVERSITY, TIRUCHIRAPPALLI-24

in partial fulfillment of the requirement for the award of the degree of
MASTER OF SCIENCE IN CHEMISTRY

Submitted by
Mr. B. KARTHICK
(Reg. No.: 16PCH037)

Under the guidance of
Dr. F. M. MASHOOD AHAMED


Since – 1951

POST GRADUATE AND RESEARCH DEPARTMENT OF CHEMISTRY
JAMAL MOHAMED COLLEGE (Autonomous)
College with Potential for Excellence
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(Affiliated to Bharathidasan University)
TIRUCHIRAPPALLI-620 020

APRIL-2018



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(Affiliated to Bharathidasan University)

TIRUCHIRAPPALLI – 620 020

NAAC - SSR IV CYCLE

Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

**SYNTHESIS, CHARACTERIZATION AND BIOLOGICAL ACTIVITY OF
(1E)-N-PHENYL-N-(4H-1,2,4-TRIAZOL-4-YL)ETHANIMIDAMIDE**

A project work submitted to the
JAMAL MOHAMED COLLEGE (AUTONOMOUS)
Affiliated to the
Bharathidasan University, Tiruchirappalli – 24

in partial fulfillment of the requirement
for the award of the Degree of

MASTER OF SCIENCE IN CHEMISTRY

Submitted by

Y. MOHAMED AARON
Reg. No: 16PCH041

Under the guidance of

Mr. A. ASRAR HAMED



Since - 1951

**PG AND RESEARCH DEPARTMENT OF CHEMISTRY
JAMAL MOHAMED COLLEGE (AUTONOMOUS)**

College with Potential for Excellence
Reaccredited (3rd Cycle) with "A" Grade by NAAC
(Affiliated to Bharathidasan University)
TIRUCHIRAPPALLI-620 020

MARCH-2018



JAMAL MOHAMED COLLEGE (AUTONOMOUS)

(Affiliated to Bharathidasan University)

TIRUCHIRAPPALLI – 620 020

NAAC - SSR IV CYCLE

Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

**BIOGENIC CORROSION INHIBITOR ON MILD STEEL
PROTECTION IN 1.0 N HCl MEDIUM**

A project work submitted to the

JAMAL MOHAMED COLLEGE (Autonomous)

affiliated to the

BHARATHIDASAN UNIVERSITY, Tiruchirappalli-20

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

MASTER OF SCIENCE IN CHEMISTRY

submitted by,

**S. GOWSHIKA SELVI
(Reg.No.: 16PCH069)**

under the guidance of

Mrs. A. MUSHIRA BANU



Since-1951

**PG AND RESEARCH DEPARTMENT OF CHEMISTRY
JAMAL MOHAMED COLLEGE (Autonomous)**

College with Potential for Excellence
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Tiruchirappalli- 620 020

MARCH-2018



JAMAL MOHAMED COLLEGE (AUTONOMOUS)

(Affiliated to Bharathidasan University)

TIRUCHIRAPPALLI – 620 020

NAAC - SSR IV CYCLE

Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

**LUFFA ACUTANGULA LEAVES AQUEOUS EXTRACT AS A
SUSTAINABLE GREEN CORROSION INHIBITOR FOR MILD STEEL
IN 1.0 M H₂SO₄**

A project work submitted to the

JAMAL MOHAMED COLLEGE (Autonomous)

affiliated to the

BHARATHIDASAN UNIVERSITY, Tiruchirappalli-20

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

MASTER OF SCIENCE IN CHEMISTRY

submitted by,

S. JAYAPRIYA

(Reg.No.: 16PCH058)

under the guidance of

Mrs. A. SAMSATH BEGUM, M.Sc., M.Phil.,



Since-1951

PG AND RESEARCH DEPARTMENT OF CHEMISTRY

JAMAL MOHAMED COLLEGE (Autonomous)

College with Potential for Excellence

Re-accredited (3rd Cycle) with 'A' Grade by NAAC

Affiliated to BHARATHIDASAN UNIVERSITY

Tiruchirappalli- 620 020

MARCH-2018



JAMAL MOHAMED COLLEGE (AUTONOMOUS)

(Affiliated to Bharathidasan University)

TIRUCHIRAPPALLI – 620 020

NAAC - SSR IV CYCLE

Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

DEPARTMENT OF COMMERCE

DATE:28.02.2017

TIME:2.30 P.M

Quiz competition





JAMAL MOHAMED COLLEGE (AUTONOMOUS)

(Affiliated to Bharathidasan University)

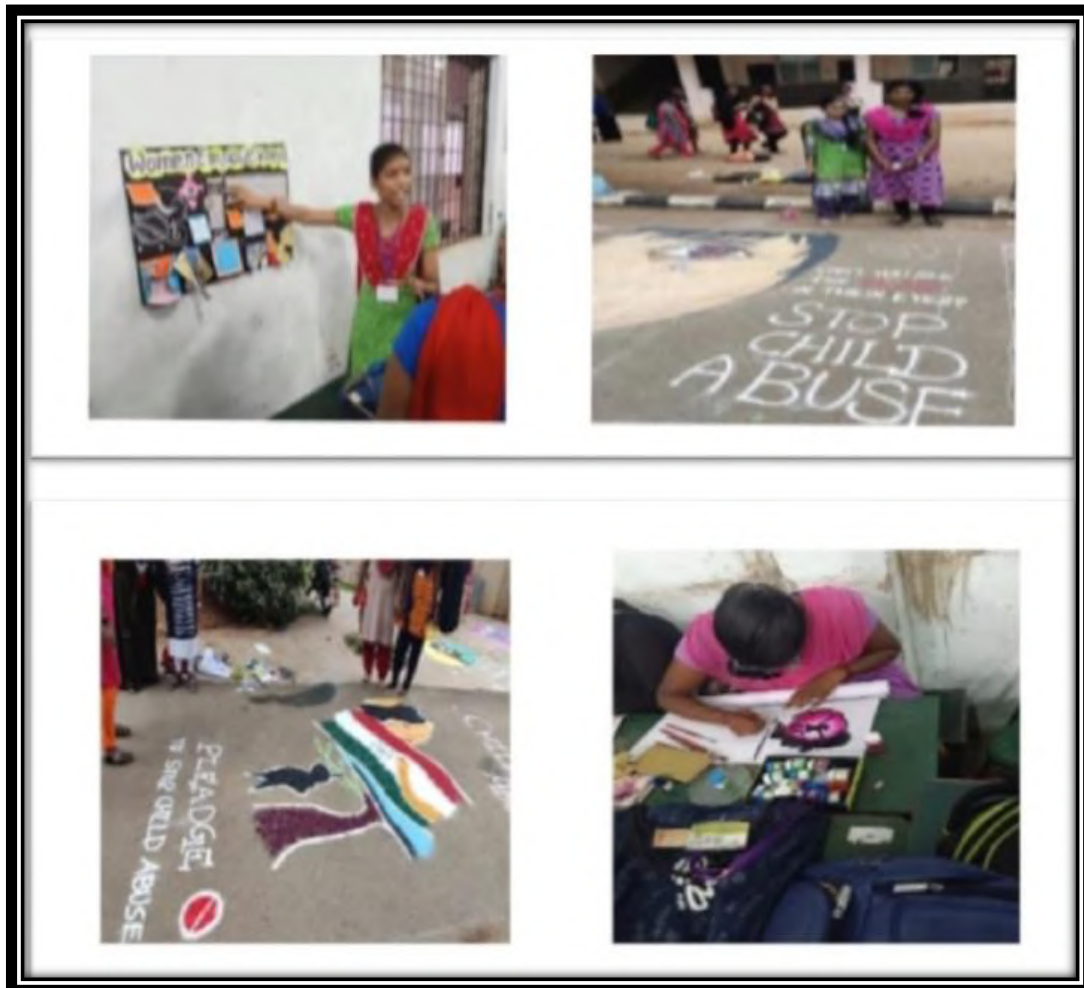
TIRUCHIRAPPALLI – 620 020

NAAC - SSR IV CYCLE

Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences



Competition conducted by ADA Club on “YUTHAM SEIVOM” 19.12.2019.



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(Affiliated to Bharathidasan University)

TIRUCHIRAPPALLI – 620 020

NAAC - SSR IV CYCLE

Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

**A STUDY ON QUALITY OF WORK LIFE WITH REFERENCE TO
EMPLOYEES OF RANE BRAKE LINING TIRUCHIRAPPALLI**

Project report submitted to the
JAMAL MOHAMED COLLEGE (Autonomous)
Affiliated to **Bharathidasan University**, Tiruchirappalli

In partial fulfilment of the requirements

For the award of the Degree of

MASTER OF COMMERCE

Submitted By

MOHAMED GULAM RASOOL M

(Reg. No: 16PCO032)

Under the Guidance of

Dr. A.KHALEELUR RAHMAN

M.Com., B.Ed., PGDCA., M.Phil., Ph.D.,

Associate Professor of Commerce



Since 1951

PG& RESEARCH DEPARTMENT OF COMMERCE

JAMAL MOHAMED COLLEGE (Autonomous)

College with Potential for Excellence

Re-Accredited (3rd Cycle) with 'A' Grade by NAAC

TIRUCHIRAPPALLI – 620020

MARCH 2018



JAMAL MOHAMED COLLEGE (AUTONOMOUS)

(Affiliated to Bharathidasan University)

TIRUCHIRAPPALLI – 620 020

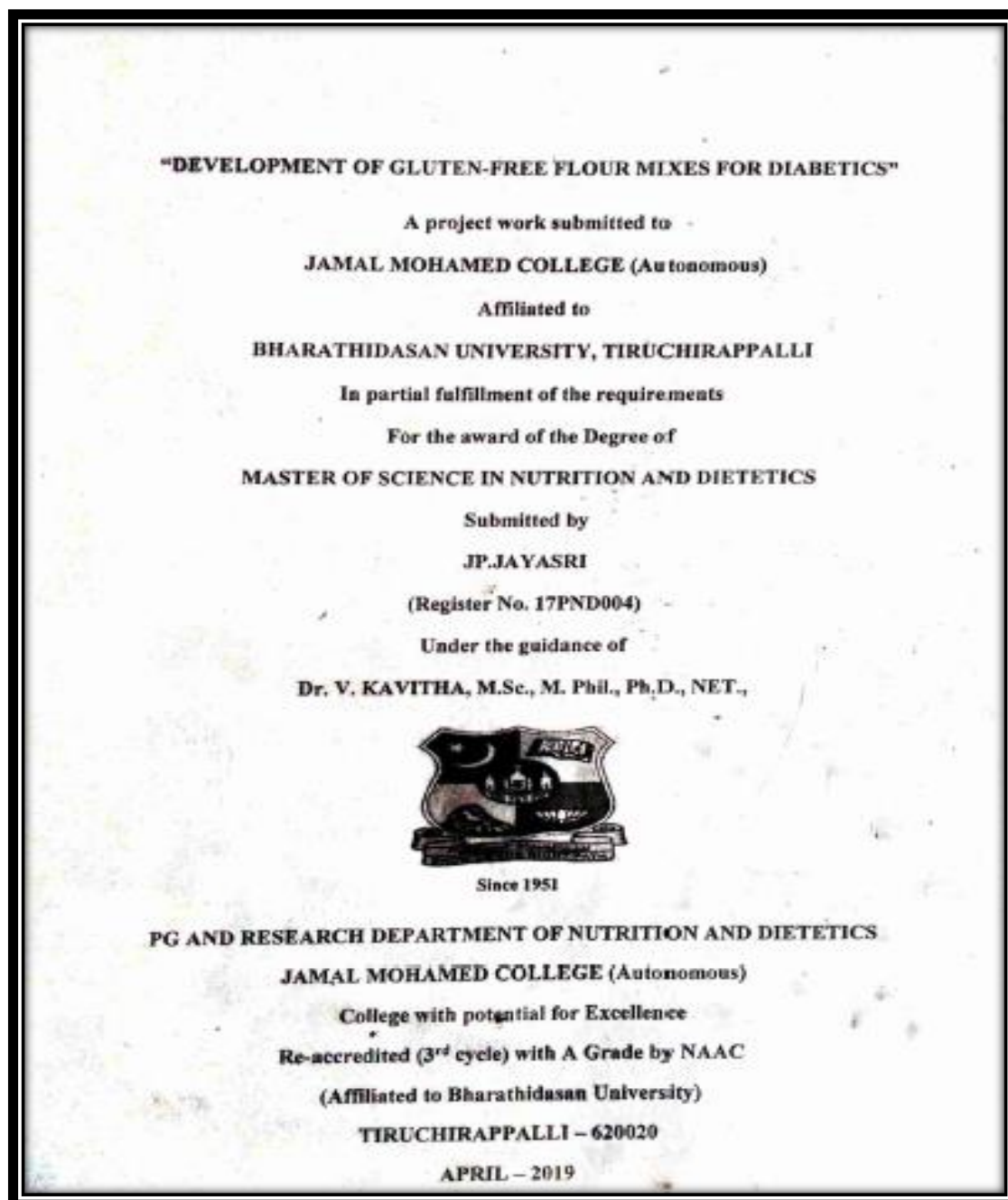
NAAC - SSR IV CYCLE

Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

DEPARTMENT OF NUTRITION AND DIETETICS





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(Affiliated to Bharathidasan University)

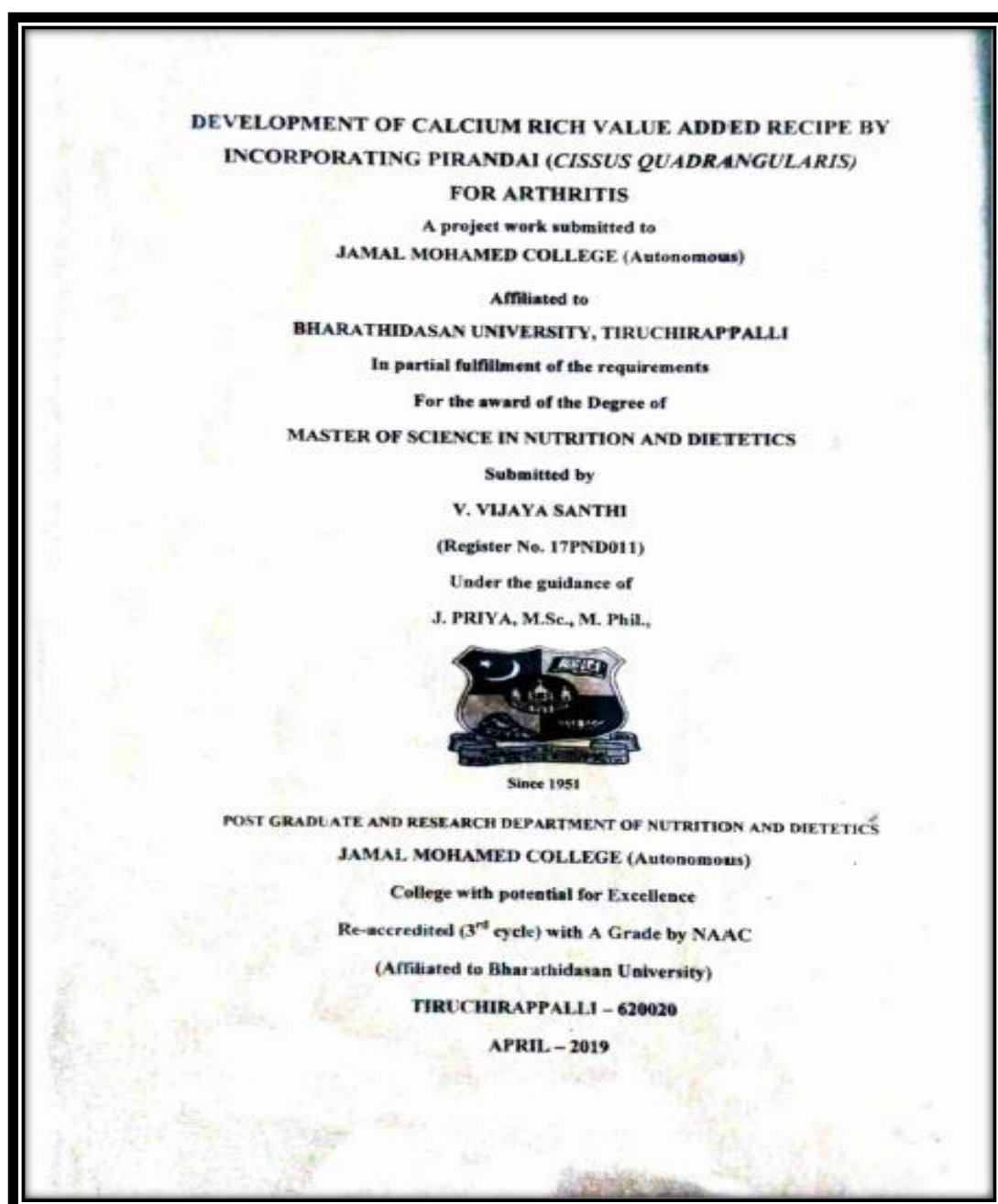
TIRUCHIRAPPALLI – 620 020

NAAC - SSR IV CYCLE

Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences





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NAAC - SSR IV CYCLE

Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

**DEVELOPMENT OF SUPPLEMENTARY MIXES FOR THE PREPARATION
OF SPORTS DRINKS (GATORADE) BY USING *MURRAYA KOENIGII* LEAVES
AND NATURAL INDIGENOUS FOOD ITEMS FOR SPORTS GIRLS.**

A Project Work Submitted To

JAMAL MOHAMED COLLEGE (AUTONOMOUS)

Affiliated to

BHARATHIDASAN UNIVERSITY, TIRUCHIRAPPALLI

In partial fulfillment of the requirements

For the award of the degree of

MASTER OF SCIENCE IN NUTRITION AND DIETETICS

Submitted by

B.MADHUMITHA

(Reg. No. 17PND014)

Under the guidance of

Mrs.B.RAJALAKSHMI,M.Sc.,M.Phil.,



**POST GRADUATE AND RESEARCH DEPARTMENT OF NUTRITION AND
DIETETICS**

JAMAL MOHAMED COLLEGE (AUTONOMOUS)

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(Affiliated to BHARATHIDASAN UNIVERSITY)

TIRUCHIRAPPALLI-620 020

APRIL-2019



JAMAL MOHAMED COLLEGE (AUTONOMOUS)

(Affiliated to Bharathidasan University)

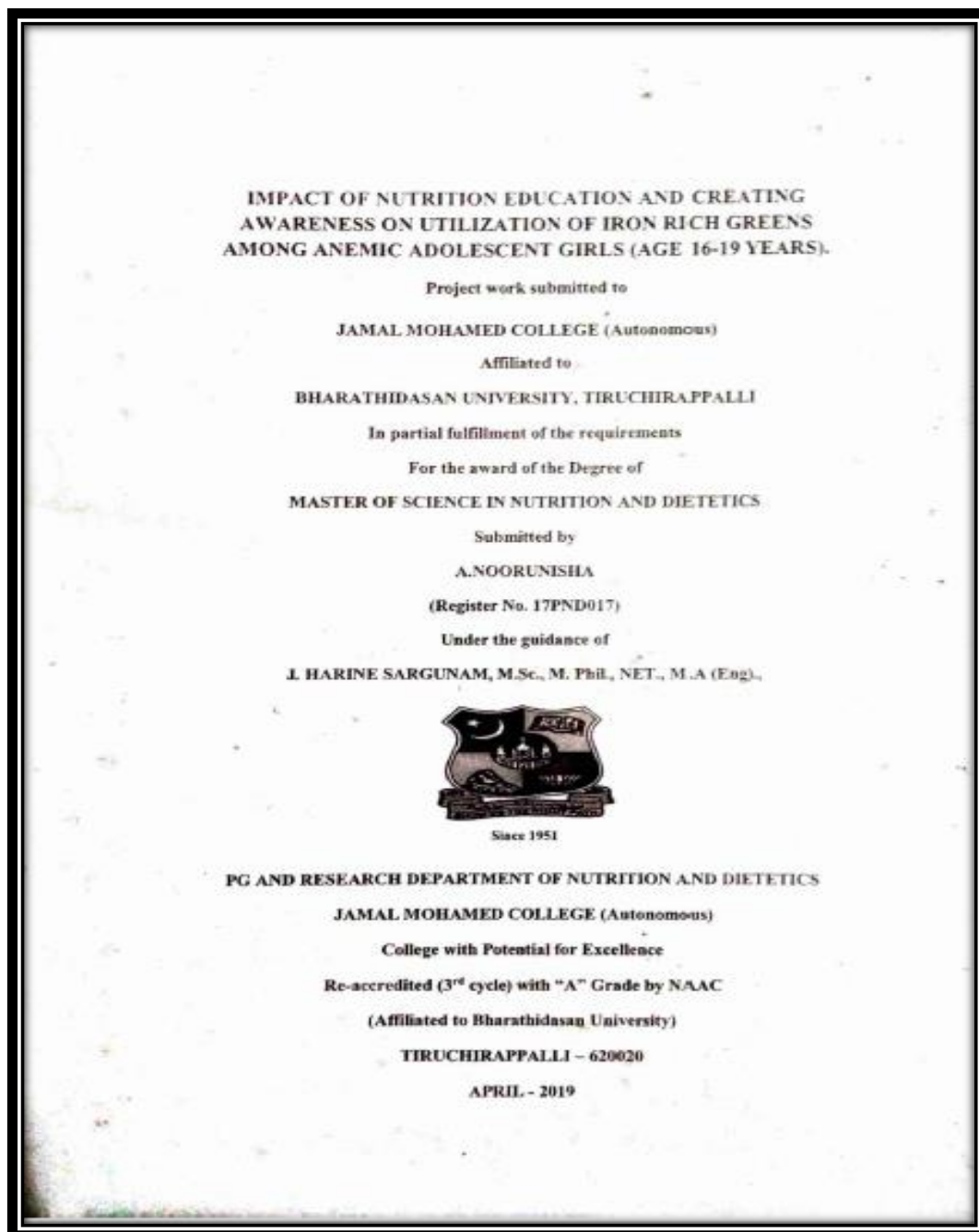
TIRUCHIRAPPALLI – 620 020

NAAC - SSR IV CYCLE

Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

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NAAC - SSR IV CYCLE

Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

(2017-2018)

DEPARTMENT OF COMMERCE

OXIDATION OF CINNAMIC ACID BY QUINOLINIUM FLUOROCHROMATE

A Dissertation submitted to

JAMAL MOHAMED COLLEGE (AUTONOMOUS)

Affiliated to **BHARATHIDASAN UNIVERSITY, TIRUCHIRAPPALLI**
In Partial fulfillment of the requirements For the award of the Degree of

MASTER OF SCIENCE IN CHEMISTRY

Submitted by

MUHAMMAD AZHAR M

(REGISTER NO: 15PCH010)

Under the guidance of

Dr. S. K.PERIYASAMY

ASSISTANT PROFESSOR



PG and RESEARCH DEPARTMENT OF CHEMISTRY

JAMAL MOHAMED COLLEGE (AUTONOMOUS)

(Re-Accredited(3rd Cycle) with 'A' Grade by NAAC)

(Affiliated to the Bharathidasan University)

TIRUCHIRAPPALLI - 620 020

APRIL 2017



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(Affiliated to Bharathidasan University)

TIRUCHIRAPPALLI – 620 020

NAAC - SSR IV CYCLE

Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

**SYNTHESIS, CHARACTERISATION AND BIOLOGICAL
ACTIVITIES OF ACETYL IMIDAZOLE DERIVATIVE**

A Project work submitted to the

JAMAL MOHAMED COLLEGE (Autonomous)

Affiliated to BHARATHIDASAN UNIVERSITY, TIRUCHIRAPPALLI-24

In Partial fulfilments of the requirements for the award of the Degree of

MASTER OF SCIENCE IN CHEMISTRY

Submitted by

JAMSHIR PK

(Reg. No: 15PCH005)

Under the guidance of

Dr .M. YASEEN MOWLANA., MSc. M.Phil., Ph.D., B.Ed., PGDCA



Since 1951

POST GRADUATE AND RESEARCH DEPARTMENT OF CHEMISTRY

JAMAL MOHAMED COLLEGE (Autonomous)

Reaccredited (3rd cycle) with "A" Grade by NAAC)

TIRUCHIRAPPALLI-620 020

MARCH-2017



JAMAL MOHAMED COLLEGE (AUTONOMOUS)

(Affiliated to Bharathidasan University)

TIRUCHIRAPPALLI – 620 020

NAAC - SSR IV CYCLE

Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

**ANTIMICROBIAL SCREENING EFFECT OF 2-AMINOTHIAZOLE BASED
TERPOLYMER AND ITS METAL COMPLEX**

A project work submitted to
JAMAL MOHAMED COLLEGE (Autonomous)
affiliated to the
Bharathidasan University, Tiruchirappalli-24
in partial fulfillment of the requirements
for the award of the Degree of

MASTER OF SCIENCE IN CHEMISTRY

Submitted by
T.BASKAR
(Register No.: 15PCH032)

Under the guidance of
Mr. N. MUJAFAR KANI



Since 1951

PG AND RESEARCH DEPARTMENT OF CHEMISTRY
JAMAL MOHAMED COLLEGE (Autonomous)
College with Potential for Excellence
Re-accredited (3rd cycle) with 'A' Grade by NAAC
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Tiruchirappalli- 620 020.

MARCH-2017



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(Affiliated to Bharathidasan University)

TIRUCHIRAPPALLI – 620 020

NAAC - SSR IV CYCLE

Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

**PHYSICO – CHEMICAL PARAMETERS & HEAVY METAL ANALYSIS
OF GROUND WATER POLLUTION IN AND AROUND
UDAYARPALAYAM TALUK AT ARIYALUR DISTRICT – TAMILNADU**

A project work submitted to the

JAMAL MOHAMED COLLEGE (AUTONOMOUS)

affiliated to the

BHARATHIDASAN UNIVERSITY, Tiruchirappalli-20.

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

MASTER OF SCIENCE IN CHEMISTRY

Submitted by,

**T. RAMANI
(Reg. No.: 15PCH053)**

Under the guidance of

Mrs. R. ARULNANGAI



Since-1951

PG AND RESEARCH DEPARTMENT OF CHEMISTRY

JAMAL MOHAMED COLLEGE (Autonomous)

College with Potential for Excellence

Reaccredited (3rd Cycle) with 'A' Grade by NAAC

Affiliated to Bharathidasan University

Tiruchirappalli- 620020

APRIL-2017



JAMAL MOHAMED COLLEGE (AUTONOMOUS)

(Affiliated to Bharathidasan University)

TIRUCHIRAPPALLI - 620 020

NAAC - SSR IV CYCLE

Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

**CORROSION INHIBITION OF CARBON STEEL BY ZINC COMPLEX OF
(1-8-HYDROXY-QUINOLIN-2YL METHYL) THIIOUREA IN WELLWATER**

A Project work submitted to the

JAMAL MOHAMED COLLEGE (Autonomous)

in partial fulfillment of the requirement

for the award of the Degree of

MASTER OF SCIENCE IN CHEMISTRY

Submitted by

Mr. N.RAMESH

Reg. No: 15PCH043

Under the guidance of

Mr.H. MOHAMED KASIM SHEIT, M.Sc., M.Phil.,



Since - 1951

PG & RESEARCH DEPARTMENT OF CHEMISTRY

JAMAL MOHAMED COLLEGE (AUTONOMOUS)

College with Potential for Excellence

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(Affiliated to Bharathidasan University)

TIRUCHIRAPPALLI- 620 020.

MARCH-2017



JAMAL MOHAMED COLLEGE (AUTONOMOUS)

(Affiliated to Bharathidasan University)

TIRUCHIRAPPALLI - 620 020

NAAC - SSR IV CYCLE

Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

**INHIBITION EFFECT OF *PHYLLANTHUS ASIDUS* LEAF EXTRACT ON
CORROSION OF ALUMINIUM IN 1.0 M HCl**

a project work submitted to

JAMAL MOHAMED COLLEGE (Autonomous)

affiliated to the

Bharathidasan University, Tiruchirappalli-620 020

in partial fulfillment of the requirements

for the award of the Degree of

MASTER OF SCIENCE IN CHEMISTRY

submitted by

MUHAMMED ANSAB. TK

(Register No: 15PCH033)

under the guidance of

Dr. T. JEYARAJ, M.Sc., MPhil., Ph.D.,



Since 1951

POST GRADUATE AND RESEARCH DEPARTMENT OF CHEMISTRY

JAMAL MOHAMED COLLEGE (Autonomous)

College with Potential for Excellence

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(Affiliated to Bharathidasan University)

Tiruchirappalli-620 020

APRIL - 2017



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(Affiliated to Bharathidasan University)

TIRUCHIRAPPALLI – 620 020

NAAC - SSR IV CYCLE

Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

**SYNTHESIS, CHARACTERIZATION AND BIOLOGICAL ACTIVITY OF
(2Z,4E)-1-(6-CHLOROPYRIDIN-3-YL)-5-PHENYLPENTA-2,4-DIEN-1-ONE**

A Project work Submitted to
JAMAL MOHAMED COLLEGE (Autonomous)
affiliated to the Bharathidasan University, Tiruchirappalli

*in partial fulfillment of the requirement
for the award of the Degree of*

MASTER OF SCIENCE IN CHEMISTRY

Submitted by

K.SURESHKUMAR
(Reg. No: 15PCH039)

Under the guidance of

Mr. A. ASRAR AHAMED



Since-1951

PG & RESEARCH DEPARTMENT OF CHEMISTRY
JAMAL MOHAMED COLLEGE (Autonomous)
COLLEGE WITH POTENTIAL FOR EXCELLENCE
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Tiruchirappalli-620 020
MARCH-2017.



JAMAL MOHAMED COLLEGE (AUTONOMOUS)

(Affiliated to Bharathidasan University)

TIRUCHIRAPPALLI – 620 020

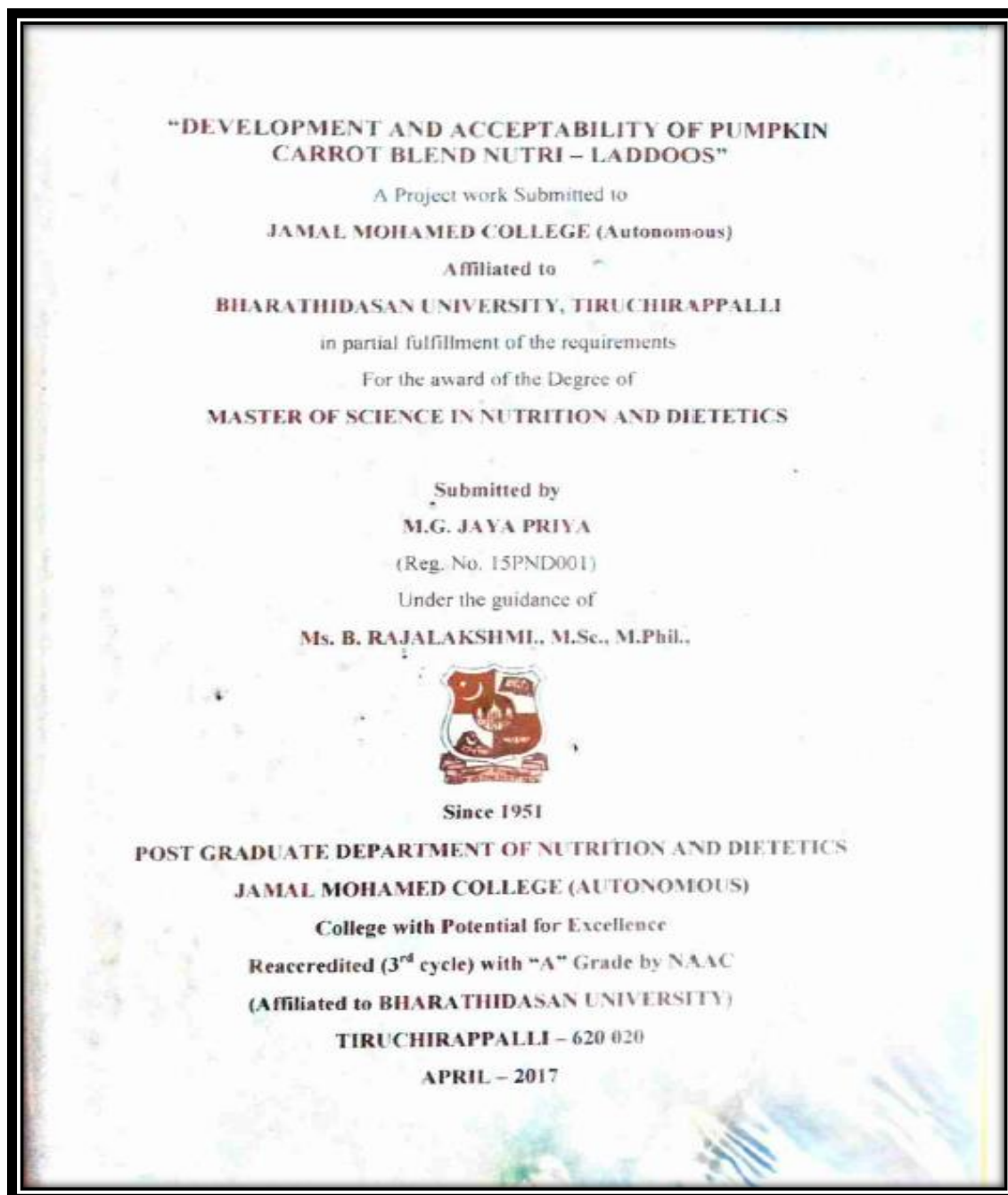
NAAC - SSR IV CYCLE

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DEPARTMENT OF NUTRITION AND DIETETICS





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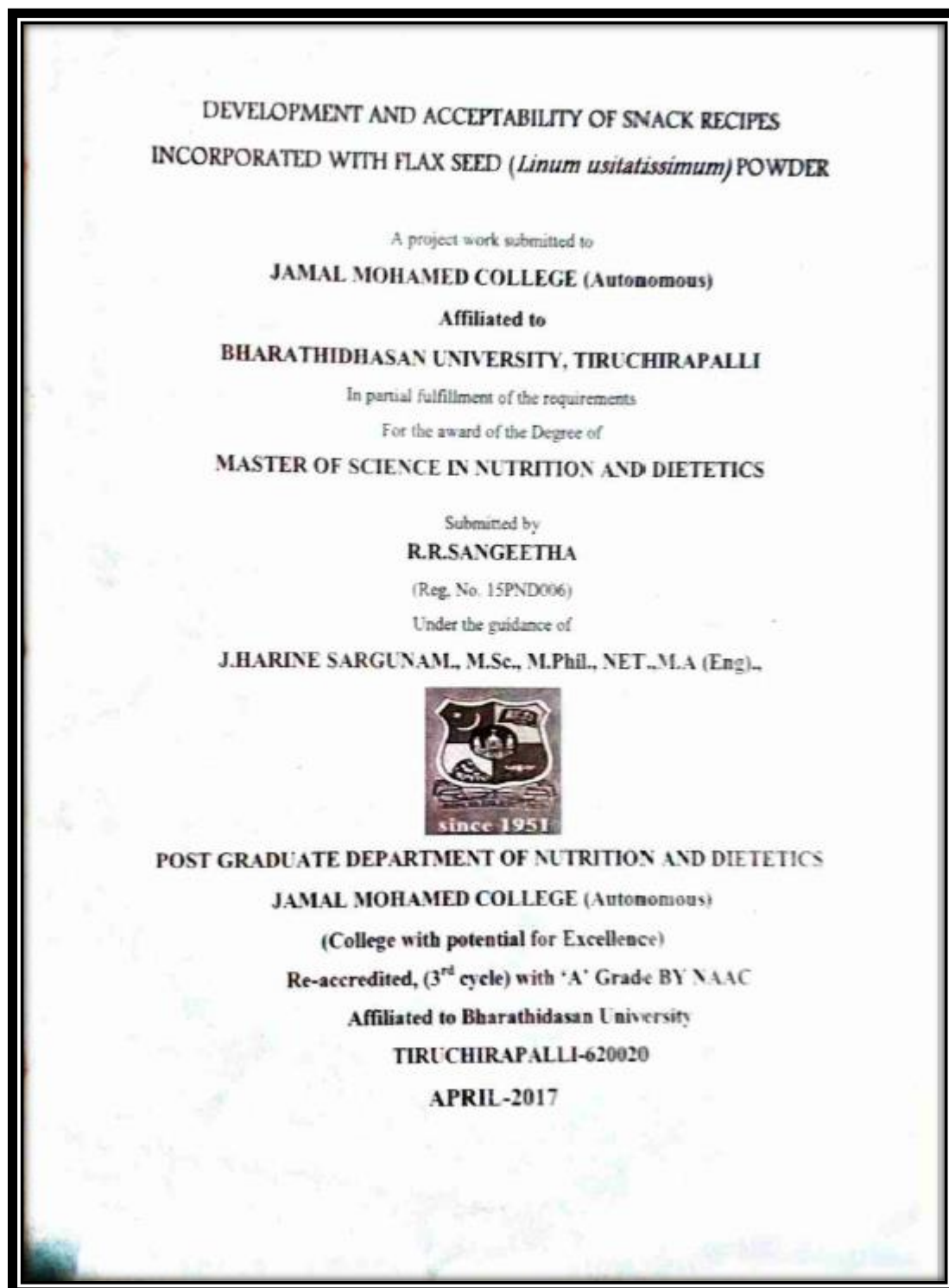
TIRUCHIRAPPALLI – 620 020

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Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

**DEVELOPMENT AND STANDARDISATION OF RECIPES FROM
MULTI MILLETS FLOUR**

A Project work submitted to

JAMAL MOHAMMED COLLEGE (Autonomous)

Affiliated to

BHARATHIDASAN UNIVERSITY, THIRUCHIRAPPALLI

In partial fulfillment of the requirements

For the award of the degree of

MASTER OF SCIENCE IN NUTRITION AND DIETETICS

Submitted by

S.JASMINE

(Reg. No.15PND007)

Under the guidance of

Ms. V. KAVITHA., M.sc., M. Phil.,



Since 1951

POST GRADUATE DEPARTMENT OF NUTRITION AND DIETETICS

JAMAL MOHAMMED COLLEGE (AUTONOMOUS)

(College with potential for excellence)

Affiliated to **BHARATHIDASAN UNIVERSITY**

Re-accredited, (3rd cycle) with "A" grade by NAAC

TIRUCHIRAPPALLI-620 020

APRIL-2017



JAMAL MOHAMED COLLEGE (AUTONOMOUS)

(Affiliated to Bharathidasan University)

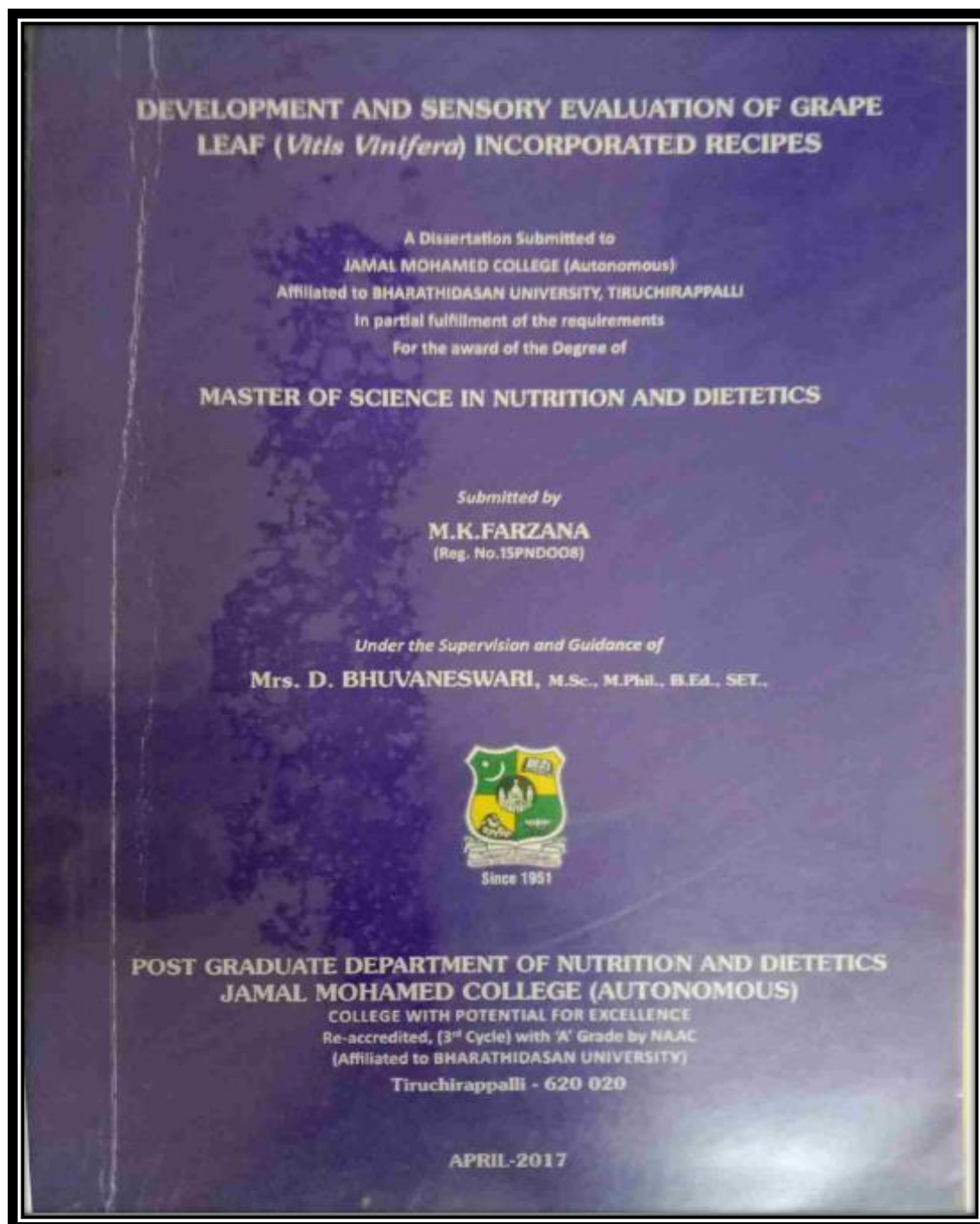
TIRUCHIRAPPALLI – 620 020

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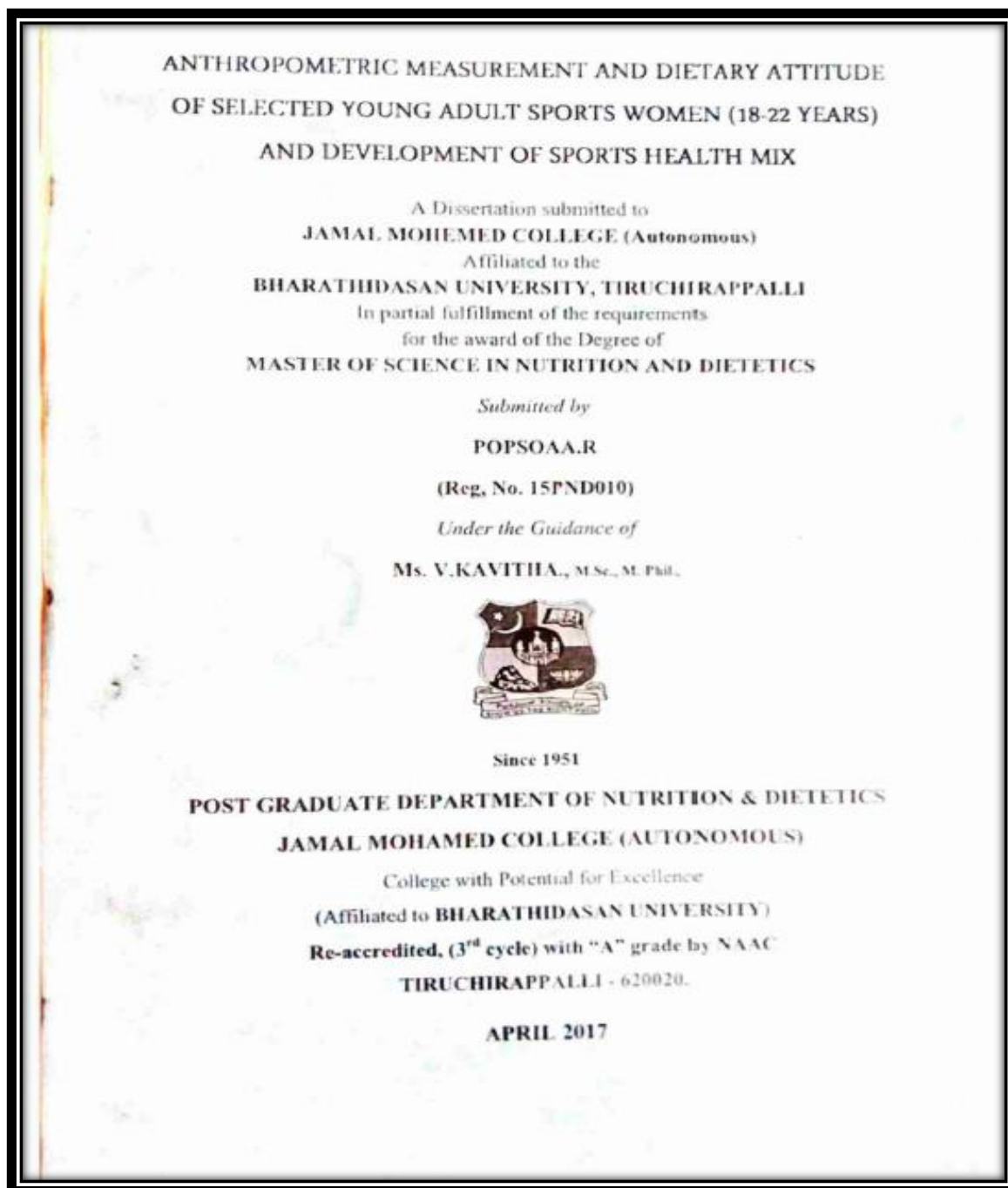
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NAAC - SSR IV CYCLE

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**"ASSESSMENT ON NUTRITIONAL STATUS AMONG SELECTED
ADOLESCENT GIRLS (15-17 YEARS) AND IMPART NUTRITION
EDUCATION FOR THE UNDERWEIGHT IN PERAMBALUR DISTRICT"**

A Project work submitted to

JAMAL MOHAMED COLLEGE (Autonomous)

Affiliated to

BHARATHIDASAN UNIVERSITY, TIRUCHIRAPPALLI

in partial fulfillment of the requirements

For the award of the Degree of

MASTER OF SCIENCE IN NUTRITION AND DIETETICS

Submitted by

K.S. ISHATH BEGUM

(Reg. No. 16PND003)

Under the guidance of

Mrs. M.I.YASMINE, M.Sc.,

Assistant Professor



Since 1951

POST GRADUATE DEPARTMENT OF NUTRITION AND DIETETICS

JAMAL MOHAMED COLLEGE (AUTONOMOUS)

College with Potential for Excellence

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Re-Accredited (3rd cycle) with A grade by NAAC

TIRUCHIRAPPALLI-620020

APRIL-2018



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NAAC - SSR IV CYCLE

Criterion II – Teaching-Learning and Evaluation

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2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

**DEVELOPMENT AND ACCEPTABILITY OF READY MIX POWDERS
INCORPORATED WITH JAMUN SEED (*SYZYGium CUMINI*)
POWDER FOR DIABETIC PATIENTS**

A project work submitted to

JAMAL MOHAMED COLLEGE (Autonomous)

Affiliated to

BHARATHIDASAN UNIVERSITY, TIRUCHIRAPPALLI

In partial fulfillment of the requirements

For the award of the Degree of

MASTER OF SCIENCE IN NUTRITION AND DIETETICS

Submitted by

S. JANAPRIYA

(Register No. 16PND004)

Under the guidance of

J. HARINE SARGUNAM, M.Sc., M. Phil., NET., M.A (Eng.)



Since 1951

POST GRADUATE DEPARTMENT OF NUTRITION AND DIETETICS

JAMAL MOHAMED COLLEGE (Autonomous)

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APRIL - 2018



JAMAL MOHAMED COLLEGE (AUTONOMOUS)

(Affiliated to Bharathidasan University)

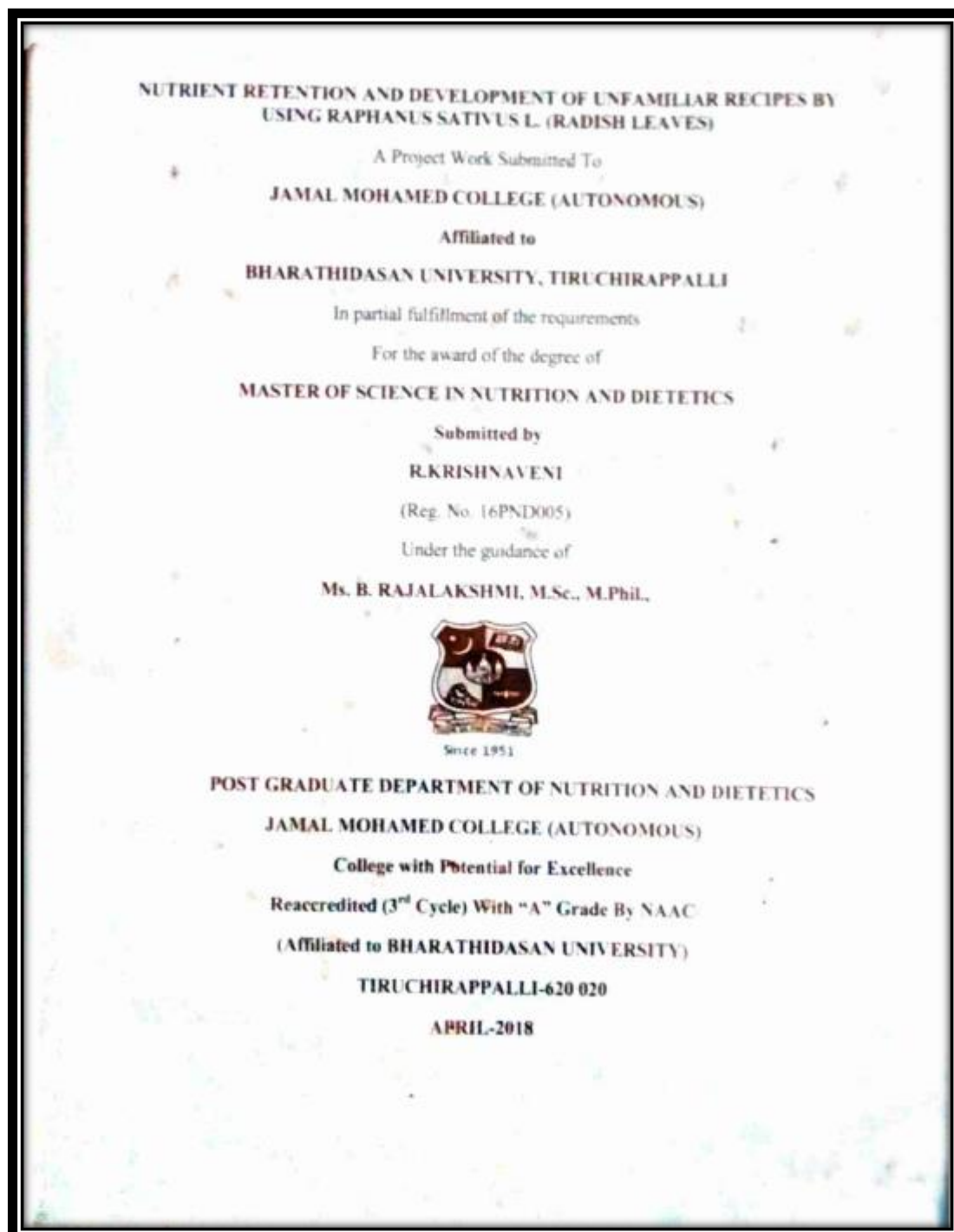
TIRUCHIRAPPALLI – 620 020

NAAC - SSR IV CYCLE

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TIRUCHIRAPPALLI – 620 020

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Department of MBA Conducting Problem Solving Events



JAMAL MOHAMED COLLEGE (AUTONOMOUS)

(Affiliated to Bharathidasan University)

TIRUCHIRAPPALLI – 620 020

NAAC - SSR IV CYCLE

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Anti Dowry Awareness program (MIME event) conducted on 14.12.2017.



JAMAL MOHAMED COLLEGE (AUTONOMOUS)

(Affiliated to Bharathidasan University)

TIRUCHIRAPPALLI – 620 020

NAAC - SSR IV CYCLE

Criterion II – Teaching-Learning and Evaluation

2.3 Teaching – Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences



Student participation in “Manam Kondu ManamMudippom” on 22-12-2017.