

VISVESVARAYA TECHNOLOGICAL UNIVERSITY
BELAGAVI, KARNATAKA-590018



FINAL PROJECT REPORT (18BTP83)

**“EVALUATION OF PHYSICO-CHEMICAL PROPERTIES AND
FORMULATION OF LEGUME DRINK DERIVED FROM
Mucuna pruriens var. *utilis* (White)”**

Submitted in partial fulfilment of the requirement for the award of the degree of
BACHELOR OF ENGINEERING IN BIOTECHNOLOGY

For the academic year 2020-2024

Submitted by

AAKRITI SHANKAR- 1MV20BT001

ADEEN-1MV20BT003

BHOOMIKA Y K-1MV20BT009

SYEDA AYESHA- 1MV20BT025

Under the guidance of

Dr. Rashmi K V

Associate Professor, Department of Biotechnology

DEPARTMENT OF BIOTECHNOLOGY



SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
HUNSMARNAHALLI, BENGALURU- 562157

**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY,
BENGALURU**

DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE


This is to certify that the project work entitled "Evaluation of physico-chemical properties and formulation of legume drink derived from *Mucuna pruriens* var. *utilis* (White)" is a bonafide work carried out by Aakriti Shankar (1MV20BT001), Adeem (1MV20BT003), Bhoomika Y K (1MV20BT009) and Syeda Ayesha (1MV20BT025) in partial fulfillment for the award of Degree of Bachelor of Engineering in Biotechnology under Visvesvaraya Technological University, Belgaum during the year 2020-2024. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The major project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelor of Engineering Degree.


Signature with date


Dr. Rashmi K V
Internal Guide
Dept. of Biotechnology


Signature with date

Dr. H G Nagendra
Professor & Head
Dept. of Biotechnology


PRINCIPAL
Signature with date
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
Krishnadevarayanagar, Hunsar, Hunsarhalli
International Airport Road, Bangalore-562 157
Prof. Rakesh S S
Principal
Sir MVIT

Name of the External Examiners:

1. 

2. **Dr. Kirankumar B**

Signature of the External Examiners:


29/5


29/5/24

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY
JNANA SANGAMA BELGAVI- 590018**



FINIL PROJECT REPORT (18BTP83)

“Sericin based Nano-Encapsulation for drug delivery”

Submitted in partial fulfilment of the requirements for the award of degree of

BACHELOR OF ENGINEERING IN BIOTECHNOLOGY

For the Academic Year 2020-2024

Submitted by

**ADITHYA SATHISH
1MV20BT004**

**HITHA M
1MV20BT015**

**JEEVAN PRANAY U
1MV20BT028**

Under the guidance of

DR. RAJENDRA SINGH C

Associate Professor, Dept of Biotechnology, Sir MVIT

DEPARTMENT OF BIOTECHNOLOGY



**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
HUNSAMARANAHALLI, BENGALURU – 562157**

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, BENGALURU
DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the project work entitled "Sericin based Nano-Encapsulation for drug delivery" is a bonafide work carried out by **Mr. Adithya Sathish (1MV20BT004)**, **Ms. Hitha M (1MV20BT015)** and **Mr. Jeevan Pranay U (1MV20BT028)** in partial fulfillment for the award of Degree of Bachelor of Engineering in Biotechnology under Visvesvaraya Technological University, Belgaum during the year 2020-2024. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The final project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelors of Engineering Degree.

Rajendra Singh C
Signature with date 28/8/24

Dr. Rajendra Singh C
Internal Guide
Dept. of Biotechnology

H G Nagendra
Signature with date

Dr. H G Nagendra
Professor & Head
Dept. of Biotechnology

Sulabh
Signature

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
Krishna Rayanahalli, Basamahanahalli
International Airport Road, Bangalore-562 157
Principal
Sir MVIT

Name of the External Examiners:

Signature of the External Examiners:

1. *Dr H G Nagendra*
2. *Dr. Kiran Kumar B*

H G Nagendra
29/8/24
Kiran Kumar B
29/8/24

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
HUNSAMARANAHALLI, BENGALURU - 562157
DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the project work entitled "Cultivation of *Chlorella vulgaris* under mixotrophic condition using dairy waste water for the production of biodiesel" is a bonafide work carried out by Ms. Chaitra C Mudukanagoudra (1MV20BT010), Ms. Chandini P (1MV20BT011) and Mr. Dheeraj M R (1MV20BT013) in partial fulfilment for the award of Degree of Bachelor of Engineering in Biotechnology under Visvesvaraya Technological University, Belgaum during the year 2020-2024. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelors of Engineering Degree.

Signature of Guide
: Ishwar Chandra
Assistant Professor
Dept of biotechnology

Signature of the Guide
Mr. Manjunath R
Assistant professor
Dept of biotechnology

Signature of HOD
Dr. H G Nagendra
Prof & head
Dept of Biotechnology

Signature of Principal
Prof. Rakesh S G
Principal
Sir MVIT

Name of the External Examiners:

1. H G Nagendra
2. Dr. Kiran Kumar

Signature of the External Examiners:

H G Nagendra
30/5

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY
JNANA SANGAMA BELGAVI- 590018**



MAJOR PROJECT REPORT (18BTP77)

**“Studies on Decolourization of Biomethanated Distillery Spent
Wash Using Continuous Packed Bed Reactor”**

Submitted in partial fulfilment of the requirements for the award of degree of

BACHELOR OF ENGINEERING IN BIOTECHNOLOGY

For the Academic year 2020-2024

Submitted by

**CHETHANA R C
1MV20BT012**

**NITHIN B M
1MV20BT018**

**S. LAVANYA RAJU
1MV20BT021**

**SAHANA L
1MV20BT022**

Under the guidance of

DR ISHWAR CHANDRA

Assistant professor, Department of Biotechnology ,Sir MVIT

DEPARTMENT OF BIOTECHNOLOGY



**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
HUNASAMARANAHALLI, BENGALURU-562157**

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
HUNSAMARANAHALLI, BENGALURU – 562157
DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the project work entitled “Studies on Decolourization of Biomethanated Distillery Spent Wash Using Continuous Packed Bed Reactor” is a bonafide work carried out by **Ms. Chethana R C** (1MV20BT012), **Mr. Nithin B M** (1MV20BT018) , **Ms. Savanya Raju** (1MV20BT021) and **Ms. Sahana L** (1MV20BT022) in partial fulfillment for the award of Degree of Bachelor of Engineering in Biotechnology under Visvesvaraya Technological University, Belgaum during the year 2020-2024. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelors of Engineering degree.

Signature of Guide

Mr. Ishwar Chandra

Assistant Professor

Dept. of Biotechnology

Signature of HOD

Dr. H.G. Nagendra

Prof & head

Dept. of Biotechnology

PRINCIPAL

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
Krishnadevarayanagar, Hunasamaranahalli
Internal Airport Road, Bangalore-562 157

Principal

Sir MVIT

Kiran Kumar B

30/5/24

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY
BELAGAVI, KARNATAKA**



MAJOR PROJECT REPORT (18BTP83)

On

**BIOCHEMICAL INVESTIGATIONS ON THE
INFLORESCENCE OF STACHYTARPHETA MUTABILIS
(JACO.) VAHL**

Submitted in partial fulfilment of the requirement for the award of

Bachelor of Engineering in Biotechnology

Submitted by:

**HARSHITHA. K (1MV20BT014)
VINEETH V. RAO (1MV20BT026)
YUKTA. S (1MV20BT027)**

Under the guidance of

**Dr. Mrinalini Menon
Associate Professor**



**DEPARTMENT OF BIOTECHNOLOGY
SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY
Bengaluru- 562157**

**SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY,
DEPARTMENT OF BIOTECHNOLOGY**



CERTIFICATE

This is to certify that the report of the Major project entitled "**Biochemical Investigations on the Inflorescence of *Stachytarpheta mutabilis* (Jacq.) Vahl**" is a bonafide work carried out by **Harshitha. K (IMV20BT014), Vineeth V. Rao (IMV20BT026) and Yukta. S (IMV20BT027)** in partial fulfilment for the completion of Bachelor of Engineering in Biotechnology under the **VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM** during the year 2020-2024. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirement in respect of project work prescribed for the said degree.

Signature of Project Guide

Dr. Mrinalini Menon
Associate Professor,
Department of Biotechnology,
Sir MVIT, Bengaluru

Signature of HoD

Dr. H.G Nagendra
Head of Department,
Department of Biotechnology,
Sir MVIT, Bengaluru

PRINCIPAL

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
Krishnadevarayanagar, Hunsur, Mysore
International Airport Road, Bangalore-562 157

Signature of Principal

Prof. Rakesh S.G
Principal,
Sir MVIT, Benagluru

Name of Examiners

- 1.
- 2.

Dr. Kirankumar B

Signature of Examiners

30/5/24

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY
BELAGAVI, KARNATAKA**



PROJECT REPORT ON

**An *In-vitro* study to understand the impact of Cardiovascular,
Diabetic and NSAID Drugs on the region-specific Human Gut
Microbiota model**

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

Bachelor of Engineering

In

Biotechnology

Submitted by

AHALYA P N - 1MV20BT006

AMRITA DE - 1MV20BT008

SAMHITA BHARATH SABANNAVAR - 1MV20BT023

Under the guidance of

DR. JAGADEESH KUMAR D.

DR. PRIYA NARAYAN

Department of Biotechnology



DEPARTMENT OF BIOTECHNOLOGY

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY


BANGALORE, KARNATAKA

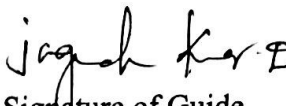
**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY,
BENGALURU
DEPARTMENT OF BIOTECHNOLOGY**

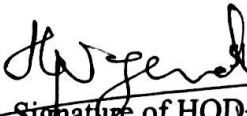



CERTIFICATE

This is to certify that the Project work entitled “An *In-vitro* study to understand the impact of Cardiovascular, Diabetic and NSAID Drugs on the region-specific Human Gut Microbiota model” is a bona fide work carried out by Ahalya P N (1MV20BT006), Amrita De (1MV20BT008), and Samhita Bharath Sabannavar (1MV20BT023), bona fide students of SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY in partial fulfillment for the award of Bachelor of Engineering in Department of Biotechnology during the years 2020-2024. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The Major project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelors of Engineering Degree.

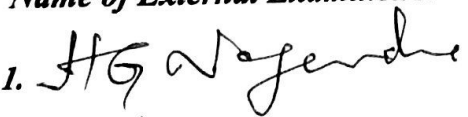
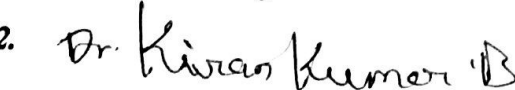

Signature of Guide
Dr. Priya Narayan
Professor
Department of
Biotechnology
Sir MVIT


Signature of Guide
Dr. Jagadeesh Kumar D
Associate Professor
Department of
Biotechnology
Sir MVIT

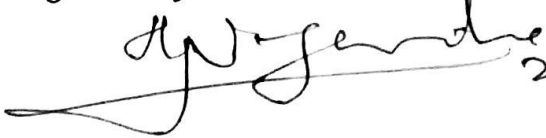


Signature of HOD
Dr. H G Nagendra
Head of Department
Department of
Biotechnology
Sir MVIT


PRINCIPAL
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
BANGALORE-56
Signature of Principal
Dr. Rakesh S. G
Principal
Sir MVIT

Name of External Examiner/s:

1. 
2. 

Signature of External Examiner/s:

 28/5


**VISVESVARAYA TECHNOLOGICAL UNIVERSITY
JNANA SANGAMA BELGAVI- 590018**



**FINAL PROJECT REPORT (18BTP83)
“EXTRACTION, PURIFICATION AND
CHARACTERISATION OF POLYSACCHARIDES FROM
Zephyranthes citrina”**

Submitted in partial fulfilment of the requirements for the award of degree of
BACHELOR OF ENGINEERING IN BIOTECHNOLOGY

For the Academic Year 2020-2024

Submitted by

**AKSHATHA V
1MV20BT007**

**KEERTHANA S K
1MV20BT016**

**ROHITH T R
1MV20BT020**

Under the guidance of

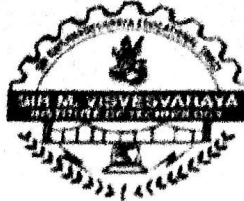
DR. RASHMI K V

Associate Professor, Dept of Biotechnology, Sir MVIT
DEPARTMENT OF BIOTECHNOLOGY



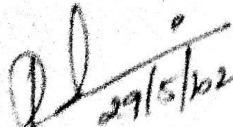
**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
HUNSAMARANAHALLI, BENGALURU – 562157**

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, BENGALURU
DEPARTMENT OF BIOTECHNOLOGY

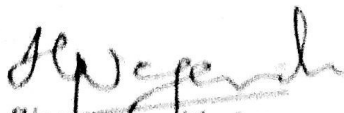


CERTIFICATE

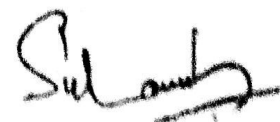
This is to certify that the project work entitled "EXTRACTION, PURIFICATION AND CHARACTERISATION OF POLYSACCHARIDES FROM *Zephyranthes citrina*" is a bonafide work carried out by Ms. Akshatha V (1MV20BT007), Ms. Keerthana S K (1MV20BT016) and Mr. Rohith T R (1MV20BT020) in partial fulfillment for the award of Degree of Bachelor of Engineering in Biotechnology under Visvesvaraya Technological University, Belgaum during the year 2020-2024. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The mini project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelors of Engineering Degree.


Signature with date

Dr. Rashmi K V
Internal Guide
Dept. of Biotechnology


Signature with date

Dr. H G Nagendra
Professor & Head
Dept. of Biotechnology


PRINCIPAL
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
Krishnadasanagar, Humnaballi
Internal Assessment Report, Bangalore-562 157
Signature with date

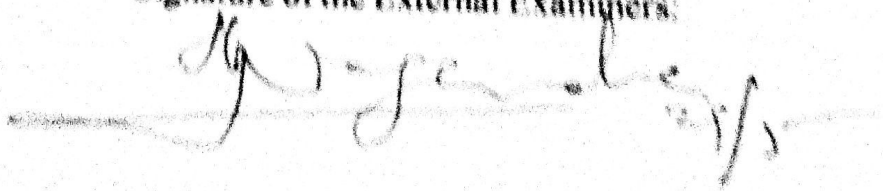
Prof. Rakesh S G
Principal
Sir MVIT

Name of the External Examiners:

1. 

2. 

Signature of the External Examiners:





**VISVESVARAYA TECHNOLOGICAL UNIVERSITY
JNANA SANGAMA BELGAVI- 590018**



FINIL PROJECT REPORT (18BTP83)

***“EXTRACTION AND PURIFICATION OF PLASTIC DEGRADING ENZYMES FROM
DOMESTIC WASTEWATER AND CREATING A BIOFILM FROM RETRIVED
MICROORGAISMS”***

Submitted in partial fulfilment of the requirements for the award of degree of
BACHELOR OF ENGINEERING IN BIOTECHNOLOGY

For the Academic Year 2023-2024

Submitted by

KANGAN M

1MV20BT029

ROHIT JOHN CHERIAN

1MV19BT020

Under the guidance of

DR. ISHWAR CHANDRA

Assistant Professor, Dept of Biotechnology, Sir MVIT

DEPARTMENT OF BIOTECHNOLOGY



**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
HUNSAMARANAHALLI, BENGALURU – 562157**

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, BENGALURU
DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the project work entitled "**EXTRACTION AND PURIFICATION OF PLASTIC DEGRADING ENZYMES FROM DOMESTIC WASTEWATER AND CREATING A BIOFILM FROM RETRIVED MICROORGAISMS**" is a bonafide work carried out by **Ms. KANGAN M (1MV20BT029)** and **Mr. ROHIT JOHN CHERIAN (1MV19BT020)** in partial fulfillment for the award of Degree of Bachelor of Engineering in Biotechnology under Visvesvaraya Technological University, Belgaum during the year 2019-2023. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The mini project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelors of Engineering Degree.

Signature with date

Dr. Ishwar Chandra
Internal Guide
Dept. of Biotechnology

Signature with date

Dr. H G Nagendra
Professor & Head
Dept. of Biotechnology

Signature with date

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
Krishnadevaraya Nagar, Hunsur, Maranahalli
International Airport Road, Bangalore-562 157
Dr. Rakesh S B
Principal
Sir MVIT

Name of the External Examiners:

1.

Signature of the External Examiners:

2.

30/5/24.

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
Bengaluru - 562 157
DEPARTMENT OF BIOTECHNOLOGY
Guest Lecture By Dr. Radhika M.B., & Dr. Soumya Markala, KCDS, Bengaluru
31st May 2023

| Sl No | USN | Name of the Student | Signature |
|-------|------------|----------------------------|---------------------|
| 1. | 1MV20BT001 | AAKRITI SHANKAR | <i>Aakriti</i> |
| 2. | 1MV20BT002 | ABHINAV G KASHYAP | <i>Abhinav</i> |
| 3. | 1MV20BT003 | ADEEN | <i>Addeen</i> |
| 4. | 1MV20BT004 | ADITHYA SATHISH | <i>Adithya</i> |
| 5. | 1MV20BT005 | ADITI A IYENGAR | <i>Aditi A</i> |
| 6. | 1MV20BT006 | AHALYA PN | <i>Ahalya</i> |
| 7. | 1MV20BT007 | AKSHATHA V | |
| 8. | 1MV20BT008 | AMRITA DE | <i>Amrita</i> |
| 9. | 1MV20BT009 | BHOOMIKA Y K | <i>byk</i> |
| 10. | 1MV20BT010 | CHAITRA C MUDUKANAGODRA | <i>Chaitra</i> |
| 11. | 1MV20BT011 | CHANDINI P | <i>Chandini P</i> |
| 12. | 1MV20BT012 | CETHANA R C | <i>Chethana R C</i> |
| 13. | 1MV20BT013 | DHEERAJ MR | <i>Dheeraj M</i> |
| 14. | 1MV20BT014 | HARSHITHA K | <i>Harshitha K</i> |
| 15. | 1MV20BT015 | HITHA M | <i>Hitha M</i> |
| 16. | 1MV20BT016 | KEERTHANA S K | <i>Keerthana</i> |
| 17. | 1MV20BT018 | NITHIN B M | <i>Nithin B M</i> |
| 18. | 1MV20BT019 | PRITHVI RAVI | <i>Prithvi</i> |
| 19. | 1MV20BT020 | ROHITH T R | <i>Rohith</i> |
| 20. | 1MV20BT021 | S.LAVANYA RAJU | <i>Lavanya</i> |
| 21. | 1MV20BT022 | SAHANA L | <i>Sahana L</i> |
| 22. | 1MV20BT023 | SAMHITA B S | <i>Samhita</i> |
| 23. | 1MV20BT024 | SHRIYA ANAND BHAMBORE | <i>Shriya</i> |
| 24. | 1MV20BT025 | SYEDA AYESHA | <i>Syed Ayesha</i> |
| 25. | 1MV20BT026 | VINEETH V RAO | <i>Vineeth</i> |
| 26. | 1MV20BT027 | YUKTA S | <i>Yukta</i> |
| 27. | 1MV20BT028 | JEEVAN PRANAY U | |
| 28. | 1MV19BT020 | ROHIT JOHN CHERIAN | |
| 29. | 1MV19BT021 | KANGAN M | <i>Kangan M</i> |



INTERNSHIP REPORT
**CHARACTERIZATION OF COMPONENTS OF *Mucuna*
*pruriens***

Submitted in partial fulfilment of the requirements for the award of degree of

BACHELOR OF ENGINEERING IN BIOTECHNOLOGY

For the Academic Year 2020-2024

Submitted by

AAKRITI SHANKAR

1MV20BT001

Under the guidance of

Dr. Shridevi and Dr. Gurmeet Singh

The University of Trans-Disciplinary Health Sciences and Technology

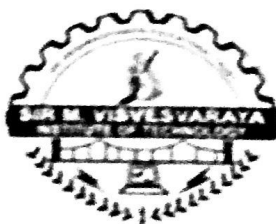
Yelahanka, Bangalore

And

Dr. Rashmi K V

Associate Professor, Sir MVIT

Department of Biotechnology




SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, BENGALURU
DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the project work entitled "CHARACTERIZATION OF COMPONENTS OF *Mucuna pruriens*" is a bonafide work carried out by Ms AAKRITI SHANKAR (1MV20BT001) in partial fulfilment of the internship program, from Molecular Biophysics Unit, Indian Institute of Science, for the award of Degree of Bachelor of Engineering in Biotechnology under Visvesvaraya Technological University, Belgaum during the year 2020-2024. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelor of Engineering Degree.


Signature with date

Dr. Rashmi K V

Internal Guide


Dept. of Biotechnology


Signature with date

Dr. H G Nagendra

Professor and Head

Dept. of Biotechnology


PRINCIPAL
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
Krishnadevarayanagar, Hosur Road, Bangalore-562 157
Signature with date

Dr. Rakesh S G


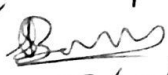
Principal

Sir MVIT

Name of the External Examiners:

Signature of the External Examiners:

1. Dr. Chaitra B.S.
2. Dr. Sudeshi Basu


27/5/24

27/05/2024

CERTIFICATE

TU



RIST
RURAL INDIA SUPPORTING TRUST

THE UNIVERSITY OF TRANS-DISCIPLINARY HEALTH SCIENCES & TECHNOLOGY
Karnataka State Private University

CERTIFICATE

This is to certify that

AAKRITI SHANKAR

has accomplished an internship from The University of Trans-Disciplinary Health Sciences and Technology (TDU) on **Characterization of Components of *Mucuna pruriens*** from 16th August 2023 to 16th September 2023

Dr. Gurmeet Singh

Course Director, Professor & Dean Research & Outreach, TDU

374/2, Jarakabande Kaval | Post: Altur | Yelahanka | Bangalore 560 064 | INDIA
tdu.edu.in

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY
JNANA SANGAMA BELGAVI- 590018**



INTERNSHIP REPORT (18BT185)

“Internship presentation on: Genomics, Proteomics and Phenomics”

Submitted in partial fulfilment of the requirements for the award of degree of

BACHELOR OF ENGINEERING IN BIOTECHNOLOGY

For the Academic Year 2020-2024

Submitted by

ABHINAV G KASHYAP

1MV20BT002

Under the guidance of

Dr. M. S. Sheshshayee

Professor & Head, University Head

Department of Physiology

UAS, GKVK, Bangalore and

DR. P. HARIHARAN

Assistant Professor, Dept of Biotechnology, Sir MVIT

DEPARTMENT OF BIOTECHNOLOGY



**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
HUNSAMARANAHALLI, BENGALURU – 562157**

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, BENGALURU
DEPARTMENT OF BIOTECHNOLOGY



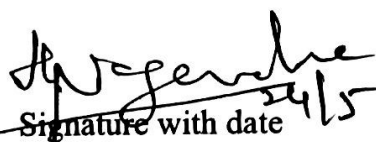
CERTIFICATE

This is to certify that the project work entitled **"Internship presentation on: Genomics, Proteomics and Phenomics"** is a bonafide work carried out by **Mr. Abhinav G Kashyap (1MV20BT002)** in partial fulfillment of the internship program, from Department of Physiology, University of Agricultural Sciences, for the award of Degree of Bachelor of Engineering in Biotechnology under Visvesvaraya Technological University, Belgaum during the year 2020-2024. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelors of Engineering Degree.



Signature with date

Dr. P Hariharan
Internal Guide
Dept. of Biotechnology



Signature with date

Dr. H G Nagendra
Professor & Head
Dept. of Biotechnology



PRINCIPAL

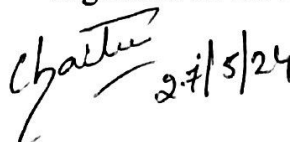
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
Krishna Nagar, Bangalore-560 075
International Airport Road, Bangalore-562 157

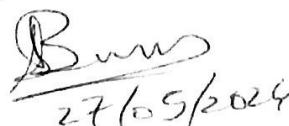
Dr. Rakesh S G
Principal
Sir MVIT

Name of the External Examiners:

1. Dr. Chaitan B.S
2. Dr. Sudesh Basu

Signature of the External Examiners:







UNIVERSITY OF AGRICULTURAL SCIENCES
Department of Crop Physiology, GKVK Campus, Bengaluru 560 065

Dr. M. S. SHESHSHAYEE MAS
Professor and University Head

CERTIFICATE

This is to Certify that, Mr. ABHINAV G KASHYAP, student of 7th semester B.E. Biotechnology, Department of Biotechnology, Sir M Visvesvaraya Institute of Technology, Bangalore-57 has successfully completed a 1 month internship programme on "Genomics, Proteomics and Transcriptomics" under my Guidance and Supervision during the period of August 2023 and September 2023 at The Department of Crop Physiology, University of Agricultural Sciences (GKVK), Bangalore-65.

During the internship Programme, Mr. ABHINAV G KASHYAP, has shown great interest and enthusiasm towards the work. His commitment and inquisitive attitudes are worth appreciating. His character and conduct were satisfactory.

A handwritten signature in black ink, appearing to read 'Sheshshayee', followed by the date '14/9/23'.

Dr. Sheshshayee M. Sreeman
Department of Crop Physiology
University of Agricultural Sciences (GKVK)

Email: msshesh1@uasbangalore.edu.in; Mobile: 9972308219

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY JNANA SANGAMA BELGAVI-
590018**



INTERNSHIP REPORT
**CHARACTERIZATION OF COMPONENTS OF *Mucuna*
*pruriens***

Submitted in partial fulfilment of the requirements for the award of degree of

BACHELOR OF ENGINEERING IN BIOTECHNOLOGY

For the Academic Year 2020-2024

Submitted by

ADEEN

1MV20BT003

Under the guidance of

Dr. Shridevi and Dr. Gurmeet Singh

The University of Trans-Disciplinary Health Sciences and Technology

Yelahanka, Bangalore

And

Dr. Rashmi K V

Associate Professor, Sir MVIT

Department of Biotechnology



**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY HUNSAMARANAHALLI,
BENGALURU – 562157**

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, BENGALURU

DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the project work entitled "CHARACTERIZATION OF COMPONENTS OF *Mucuna pruriens*" is a bonafide work carried out by Ms Adeen (1MV20BT003) in partial fulfilment of the internship program, from Molecular Biophysics Unit, Indian Institute of Science, for the award of Degree of Bachelor of Engineering in Biotechnology under Visvesvaraya Technological University, Belgaum during the year 2020-2024. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelor of Engineering Degree.

Signature with date
[Signature] 29/4/2024

Dr. Rashmi K V

Internal Guide

Dept. of Biotechnology

Signature with date
[Signature]

Dr. H G Nagendra

Professor and Head

Dept. of Biotechnology

[Signature]

PRINCIPAL

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
Krishnadevarayanagar, Hunsur, Mysore
International Airport Road, Bangalore-562 157

Dr. Rakesh S G

Principal

Sir MVIT

Name of the External Examiners:

1. Dr. Chaitra. B.S
2. Dr. Suderi Basu

Signature of the External Examiners:

[Signature] 27/5/24
[Signature] 27/05/2024

CERTIFICATE

TU

 **RIST**
RURAL INDIA SUPPORTING TRUST

THE UNIVERSITY OF TRANS-DISCIPLINARY HEALTH SCIENCES & TECHNOLOGY

Karnataka State Private University

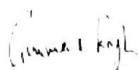
CERTIFICATE

This is to certify that

ADEEN

has accomplished an internship from The University of Trans-Disciplinary Health Sciences and Technology (TDU) on **Characterization of Components of *Mucuna pruriens***

from 16th August 2023 to 16th September 2023



Dr. Gurmeet Singh

Course Director, Professor & Dean Research & Outreach, TDU

#74/2, Jarakabande Kaval | Post: Attur | Yelahanka | Bangalore 560 064 | INDIA
tdu.edu.in

VISVESVARAYA INSTITUTE OF TECHNOLOGY
JNANA SANGAMA, BELAGAVI – 590018



INTERNSHIP REPORT (18BT185)
“Applications of Phytomolecules Against Osteoporosis”
Submitted in partial fulfilment of the requirements for the award of the degree of
BACHELOR OF ENGINEERING IN BIOTECHNOLOGY
For the Academic Year 2020 – 2024

Submitted by
ADITHYA SATHISH
1MV20BT004

Under the guidance of

Dr. Latha Damle
Chief Scientific Officer
ATRIMED Pharmaceuticals

Mr. Anirudh Manoj
Computational Chemist
ATRIMED Pharmaceuticals

and
Dr. H G Nagendra
Professor and Head, Department of Biotechnology



DEPARTMENT OF BIOTECHNOLOGY
SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY
HUNAMARANAHALLI, BENGALURU – 562157

**SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY,
BENGALURU
DEPARTMENT OF BIOTECHNOLOGY**

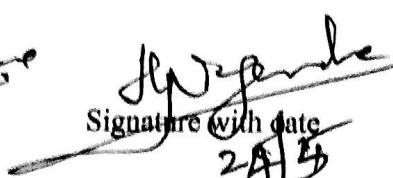


CERTIFICATE

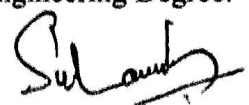
This is to certify that the project work entitled "**Applications of Phytomolecules Against Osteoporosis**" is a bonafide work carried out by **Mr. Adlithya Sathish (1MV20BT004)** in partial fulfilment of the internship program, from Atrimed Pharmaceuticals, for the award of Degree of Bachelor of Engineering in Biotechnology under Visvesvaraya Technological University, Belgaum during the year 2020-2024. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelor of Engineering Degree.


Signature with date

Dr. H G Nagendra
Internal Guide
Dept. of Biotechnology


Signature with date
24/5

Dr. H G Nagendra
Professor and Head
Dept. of Biotechnology.

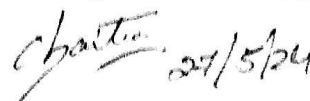


PRINCIPAL
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
Kothandaveswara, Hunsur, Mysore
International Airport Road, Bangalore-562 157

Prof. Rakesh S G
Principal
Sir MVIT

Name of the External Examiners:

1. Dr. Chaitra B.S
2. Dr. Sudevi Bannu

Signature of the External Examiners:


27/5/24

27/05/2024

Internship Certificate

This is to certify that **Mr. Aditya Sathish** (Reg No: 1MV20BT004), B. E. student from Sir M Visvervaraya Institute of Technology, Visvervaraya Technological University (VTU) , has completed 30 days project work titled **"Application of Phytomolecules against Osteoporosis"** at Atrimed Pharmaceuticals Pvt Ltd., Prestige Meridian Tower - 2, Mahatma Gandhi Road, Ashok Nagar, Bangalore, Karnataka 560001 from 16th August 2023 to 15th September 2023 under the guidance of Mr. Anirudh Manoj.

This work is the sole property of Atrimed Pharmaceuticals Pvt Ltd. and should not be reproduced or published without prior permission.



Mr. Anirudh Manoj

Project Guide

Atrimed Pharmaceuticals Pvt Ltd.,
Prestige Meridian Tower - 2,
Mahatma Gandhi Road, Ashok Nagar
Bangalore, Karnataka 560001



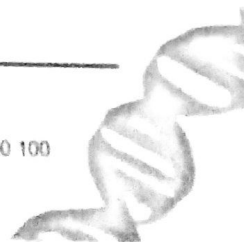
Dr. Latha Damle

Founder & CSO

Atrimed Biotech LLP

Registered Office: #755, 3rd Cross, 11th Block, 2nd Stage, BDA Layout, Nagarbhavi, Bangalore 560 072

Laboratory: EFF5, Bangalore Bioinnovation Centre, Helix Biotech Park, Electronic City phase 1, Bangalore 560 100
Tel: +91 80 41123727 +91 80 43725015 | ✉ info@atrimed.com 🌐 www.atrimedbiotech.com



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY
JNANA SANGAMA BELGAVI - 590018**



INTERNSHIP REPORT (18BTI85)

**“Hands on Training of Bioanalytical Device:
Thromboelastography”**

Submitted in partial fulfilment of the requirements for the award of degree of
BACHELOR OF ENGINEERING IN BIOTECHNOLOGY

For the Academic Year 2020-2024

Submitted by

ADITI A IYENGAR
1MV20BT005

Under the guidance of

DR. D SELVAKUMAR
Associate Director, Scientist “G”, DEP, DEBEL-DRDO

DR. H G NAGENDRA
Professor & Head, Dept. of Biotechnology, SMVIT.

DR HARIHARAN P
Asst Professor, Dept. of Biotechnology, SMVIT.

DEPARTMENT OF BIOTECHNOLOGY



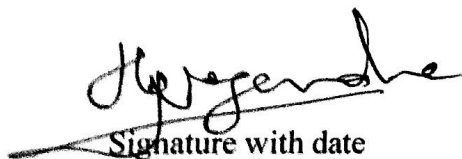
**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
HUNSAMARANAHALLI, BENGALURU-562157**

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, BENGALURU
DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the project work entitled **"The physiological basis and interpretation of Thromboelastography"** is a bonafide work carried out by **Ms. Aditi A Iyengar (IMV20BT005)** in partial fulfilment of the internship program, from Defence Bio-Engineering & Electro Medical Laboratory-DRDO, for the award of Degree of Bachelor of Engineering in Biotechnology under Visvesvaraya Technological University, Belgaum during the year 2020-2024. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelors of Engineering Degree.


Signature with date

Dr. H G Nagendra
Internal Guide
Professor & Head
Dept. of Biotechnology


Signature with date 27/5/24

Dr. Hariharan P
Internal Guide
Asst Professor
Dept. of Biotechnology

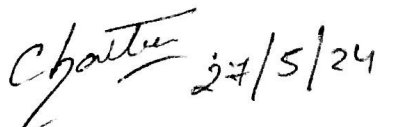
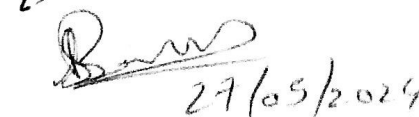

Signature with date

Dr. Rakesh S G
Principal
Sir MVIT

Name of the External Examiners:

Signature of the External Examiners:

1. Dr. Chaitan B S
2. Dr. Suderi Basu


27/5/24

27/05/2024

CERTIFICATE PAGE



Phone : (080) 22502496
Email: dhanaselva.debel@gov.in

भारत सरकार / Government of India
रक्षा मंत्रालय / Ministry of Defence
रक्षा अनुसंधान तथा विकास संगठन
Defence Research & Development Organisation
रक्षा जीव-अभियंत्रिकी तथा चिकित्सा इलेक्ट्रोमेडिकी प्रयोगशाला
DEFENCE BIOENGINEERING & ELECTROMEDICAL LABORATORY
सी वी रामन नगर / CV Raman Nagar,
बैंगलूर - 560 093 / Bangalore - 560 093.

No. DBL HRD SP 23 / 11 65a

Date: 04 10 2023

CERTIFICATE

This is to certify that Aditi A Iyengar (Reg. No. IM120BT005), pursuing B.E Biotechnology Engineering at Sir M.Visvesvaraya Institute of Technology, Bengaluru has successfully completed her Internship, entitled "Hands on training of Bioanalytical Device: Thromboelastography" in Defence Bioengineering and Electromedical Laboratory (DEBEL), Defence Research and Development Organisation (DRDO), Ministry of Defence, C.V Raman Nagar, Bengaluru from 10/08/2023-10/09/2023

No part of the above work shall be reproduced, communicated or published without prior written permission from Director, DEBEL, Bengaluru.

D. Selvakumar
Dr. D.Selvakumar
Scientist 'G', DEP
Guide

अपार्णा

Dr. A Aparna G Sastry

Scientist 'F', Dr. A. APARNA G. SASTRY
CH, HRD / SCIENTIST 'F'
प्रधान, मानव सहायन विभाग / HEAD, HRD
डेवल, सी वी आर. नगर, रक्षा मंत्रालय/DEBEL, DRDO Min. of Defence
बैंगलूर / BENGALURU - 560093

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY
BELAGAVI, KARNATAKA**



**INTERNSHIP REPORT (18BTS84)
“CONFORMATIONAL STUDIES OF AMYLIN WITH COPPER:
IMPLICATIONS IN T2DM”**

Submitted in partial fulfilment of the requirement for the award of the degree of
Bachelor of Engineering in Biotechnology
For the Academic Years 2020-2024

Submitted by:
AHALYA PN
1MV20BT006

Internship carried out at
INDIAN INSTITUTE OF SCIENCE (IISc)

Internal Guides
Dr. Priya Narayan
Professor
Sir MVIT

Internal Guides
Dr. Jagadeesh Kumar D
Associate Professor
Sir MVIT

External Guide
Dr. Govindaraju M
Molecular Biophysics Unit
Indian Institute of Science (IISc)



**DEPARTMENT OF BIOTECHNOLOGY
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
HUNASAMARANAHALLI, BENGALURU-562157**

SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU
1.1.1 DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the project work entitled "Conformational Studies of Amylin with Copper: Implications in T2DM" is submitted by Ahalya PN bearing the USN No. 1MV20BT006 in partial fulfilment of the requirement for the award of Bachelor's degree in Biotechnology Engineering prescribed by the Visvesvaraya Technological University, Belagavi during the year 2020-2024. It is certified that all the corrections/suggestions indicated for internal assessment have been incorporated in the report deposited. The Internship report has been approved as it satisfies the academic requirements in respect of project work prescribed for Bachelor of Engineering degree.


 Signature of Guide

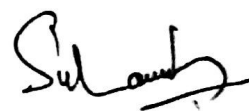
Dr. Priya Narayan
 Professor
 Department of
 Biotechnology
 Sir MVIT


 Signature of Guide

Dr. Jagadeesh Kumar D
 Associate Professor
 Department of
 Biotechnology
 Sir MVIT


 Signature of HOD

Dr. H G Nagendra
 Head of Department
 Department of
 Biotechnology
 Sir MVIT



PRINCIPAL



SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
 Krishnadevarayanagar, Hunsur Road,
 International Airport Road, Bangalore-560 075

Dr. Rakesh S. G
 Principal
 Sir MVIT

Name of External Examiner/s:

1. Dr. Chaitu B.S.
2. Dr. Sudavi Basu

Signature of External Examiner/s:


 27/5/24

 27/05/2024



Office: Assistant Professor, Molecular Biophysics Unit
5th floor, 1st main building, Indian Institute of Science

Indian Institute of Science
Bangalore - 560075

CERTIFICATE

This is to Certify that, **Ms. Ahalya P.N. (USN: 1MV20BT006)**, student of 7th semester B.E. Biotechnology, Department of Biotechnology, Sir M Visvesvaraya Institute of Technology, Bangalore-57 has successfully completed a 4 week internship programme on "Conformational studies of Amylin with copper: Implications in T2DM" using Biophysical Techniques under my Guidance and Supervision during the period of **August 2023 to September 2023** at **Molecular Biophysics Unit, Division of Biological Sciences, Indian Institute of Science, Bangalore-12**

During the internship Programme, **Ms. Ahalya**, has shown great interest and enthusiasm towards the work. Her commitment and inquisitive attitudes are worth appreciating. Her character and conduct were exemplary.

Dr. Govindaraju M
Molecular Biophysics Unit
IISc, Bangalore

Sir. M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
JNANA SANGAMA, BELAGAVI - 590018



INTERNSHIP REPORT ON

A STUDY ON PRODUCTION OF SOAP AND DETERGENT & ITS QUALITATIVE ANALYSIS

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

BACHELOR OF ENGINEERING In BIOTECHNOLOGY ENGINEERING

Submitted by:
AKSHATHA.V
(1MV20BT007)

Internship carried out at
KARNATAKA SOAPS AND DETERGENT LIMITED
Yeshwanthpur, Bengaluru, Karnataka-560086

Internal Guide:
Dr. Rashmi K.V
Associate Professor
Dept of Biotechnology
SMVIT, Bengaluru-562157

External Guide:
Sri. M.N. Nagaraj A M
Manager
Dept of quality & development
KSLD, Bengaluru- 560086



DEPARTMENT OF BIOTECHNOLOGY ENGINEERING

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
BENGALURU-562157

2023-2024

**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
BENGALURU-562157**

(Affiliated to Visvesvaraya Technological University, Belgaum, Karnataka)
DEPARTMENT OF BIOTECHNOLOGY ENGINEERING



CERTIFICATE

This is to certify that **AKSHATHA.V(1MV20BT007)**, a bonafide student of **SIR M. Visvesvaraya Institute of Technology, Bengaluru** has satisfactorily completed training on the topic **"A Study On Production of Soap and Detergent & Its Qualitative Analysis"** at **Karnataka Soaps and Detergent Limited** in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Biotechnology Engineering and submitted this report during the academic year 2023– 2024.

PRINCIPAL

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
Krishnadevarayanagar, Hunsarasanahalli
International Airport Road, Bengaluru-562 157

Prof. Rakesh S G

**Principal
Sir MVIT**

Dr. Rashmi K.V

**Associate Professor
Department of Biotechnology
Sir MVIT**

Dr. H. G. Nagendra

**Prof &HOD
Department of Biotechnology
Sir MVIT**

External Viva:

Name of the Examiners

1. **Dr. Chaitra.B.S.**
2. **Dr. Sudeshi Basu**

Signature with Date

27/5/24

27/05/2024



ಕರ್ನಾಟಕ ಸಾಬೂನು ಮತ್ತು ಮಾರ್ಬರ ನಿಯಮಿತ
ಬೆಂಗಳೂರು-55

(ಕರ್ನಾಟಕ ಸರ್ಕಾರದ ಒಂದು ಉದ್ಯಮ)

ಸಂ 17, ಕೃಷ್ಣಾಬಾ ಪವರ್, ೨೦೬ ಪೆಟ್ಟಿಗೆ ಸಂಖ್ಯೆ 5531, ಬೆಂಗಳೂರು-ಹುಣಸಮರಾಹನಹಳ್ಳಿ, ರಾಜ್ಯಪಥದ, ಬೆಂಗಳೂರು-55

ಪ್ರಮಾಣ ಪತ್ರ

NO: KSDL/HRD/DGM [TRAINING]/23-24/A 7.

Date: 15.09.2023

This is to certify that **Ms. Akshatha.V, Reg.No:1MV20BT007** Student of B.E (Biotechnology), Sir M.Visvesvaraya Institute of Technology, Krishnadevarayanagar, Hunasamarahanahalli, Off International Airport Road, Bangalore-562157, has completed her Internship on "A Study on Manufacturing Production Process and Quality Analysis" at Karnataka Soaps & Detergents Limited Bengaluru-560055 period **from:18.08.2023 to 15.09.2023**

During Internship on her academic ability and character was good.

DEPUTY GENERAL MANAGER
Human Resource Development

LAXMAN. L.O

By Gen Manager (HRD)
KARNATAKA SOAPS AND DETERGENTS LTD,
BANGALORE-560 055

Place: Bengaluru



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY
BELAGAVI, KARNATAKA**



INTERNSHIP REPORT (18BT185)

ON

**“CONFORMATIONAL STUDIES OF AMYLIN WITH
COPPER: IMPLICATIONS IN T2DM”**

Submitted in partial fulfilment of the requirement for the award of the degree of
Bachelor of Engineering in Biotechnology

For the Academic Years 2020-2024

Submitted by:

AMRITA DE

1MV20BT008

Internship carried out at

INDIAN INSTITUTE OF SCIENCE (IISc)

Internal Guide
Dr. Priya Narayan
Professor
Sir MVIT

Internal Guide
Dr. Jagadeesh Kumar D
Associate Professor
Sir MVIT

External Guide
Dr. Govindaraju M
Molecular Biophysics Unit
Indian Institute of Science (IISc)




**DEPARTMENT OF BIOTECHNOLOGY
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
HUNASAMARANAHALLI, BENGALURU-562157**


SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
BENGALURU
DEPARTMENT OF BIOTECHNOLOGY

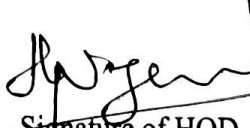



CERTIFICATE

This is to certify that the project work entitled “**CONFORMATIONAL STUDIES OF AMYLIN WITH COPPER: IMPLICATIONS IN T2DM**” is a bonafide work carried out by **Ms. Amrita De (1MV20BT008)** in partial fulfillment of the internship program, from Molecular Biophysics Unit, Indian Institute of Science, for the award of Degree of Bachelor of Engineering in Biotechnology under Visvesvaraya Technological University, Belgaum during the years 2020-2024. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelors of Engineering Degree.


Signature of Guide
Dr. Priya Narayan
Professor
Department of
Biotechnology
Sir MVIT


Signature of Guide
Dr. Jagadeesh Kumar D
Associate Professor
Department of
Biotechnology
Sir MVIT


Signature of HOD
Dr. H G Nagendra
Head of Department
Department of
Biotechnology
Sir MVIT


PRINCIPAL
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
Krishnadevarayanagar, Hunsar, Bangalore-56
International Airport Road, Bangalore-56
Signature of Principal
Dr. Rakesh S. G
Principal
Sir MVIT

Name of External Examiner/s:

1. *Dr. Chaiten B.S.*
2. *Dr. Sudar Benu*

Signature of External Examiner/s:

Chaiten 27/5/24
Benu 27/05/2024



आणविक जैवभौतिकी एकक Molecular Biophysics Unit
उच्च अग्रद्वयन अध्ययन केंद्र UGC Centre for Advanced Study

भारतीय विज्ञान संस्थान / Indian Institute of Science
बैंगलूरु / BANGALORE 560 012 (कर्णाटक) - (भारत)

CERTIFICATE

This is to Certify that, **Ms. Amrita De (USN: 1MV20BT008)**, student of 7th semester **B.E. Biotechnology**, Department of Biotechnology, **Sir M Visvesvaraya Institute of Technology, Bangalore-57** has successfully completed a 4 week internship programme on "**Conformational studies of Amylin with copper: Implications in T2DM**" using Biophysical Techniques under my Guidance and Supervision during the period of **August 2023 to September 2023** at **Molecular Biophysics Unit, Division of Biological Sciences, Indian Institute of Science, Bangalore-12**

During the internship Programme, **Ms. Amrita**, has shown great interest and enthusiasm towards the work. Her commitment and inquisitive attitudes are worth appreciating. Her character and conduct were exemplary.

Dr. Govindaraju.M
Molecular Biophysics Unit
IISc, Bangalore



INTERNSHIP REPORT
CHARACTERIZATION OF COMPONENTS OF
Mucuna pruriens

Submitted in partial fulfilment of the requirements for the award of the degree of

BACHELOR OF ENGINEERING IN BIOTECHNOLOGY

For the Academic Year 2020-2024

Submitted by

BHOOMIKA Y K

1MV20BT009

Under the guidance of

Dr. Shridevi Gothe and Dr. Gurmeet Singh

The University of Trans-Disciplinary Health Sciences and Technology

Yelahanka, Bangalore

And

Dr. Rashmi K V

Associate Professor, Sir MVIT

Department of Biotechnology




SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, BENGALURU
DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

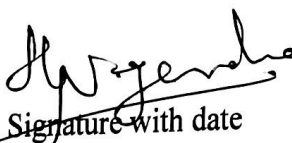
This is to certify that the project work entitled “**CHARACTERIZATION OF COMPONENTS OF *Mucuna pruriens***” is a bonafide work carried out by **Ms. Bhoomika Y K (1MV20BT009)** in partial fulfilment of the internship program, from the Molecular Biophysics Unit, Indian Institute of Science, for the award of Degree of Bachelor of Engineering in Biotechnology under Visvesvaraya Technological University, Belgaum during the year 2020-2024. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelor of Engineering Degree.


Signature with date

Dr Rashmi K V

Internal Guide

Dept. of Biotechnology


Signature with date

Dr. H G Nagendra

Professor and Head

Dept. of Biotechnology



PRINCIPAL

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
Krishnadevaraya Nagar, Whitefield
International Airport Road, Bangalore-562 027

Dr. Rakesh S G

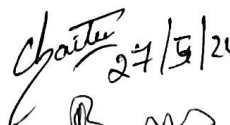

Principal

Sir MVIT

Name of the External Examiners:

Signature of the External Examiners:

1. Dr. Chaitan. B. S
2. Dr. Sudarshi Basu


27/5/24

27/05/2024

CERTIFICATE

TU



RIST

RURAL INDIAN SUPPORTING TRUST

THE UNIVERSITY OF TRANS-DISCIPLINARY HEALTH SCIENCES & TECHNOLOGY

Karnataka State Private University

CERTIFICATE

This is to certify that

BHOOMIKA Y K

has accomplished an internship from The University of Trans-Disciplinary Health Sciences and Technology (TUDHST) on **Characterization of Components of *Mucuna pruriens***

from 16th August 2023 to 16th September 2023

Dr. Gurmeet Singh

Course Director, Professor & Dean Research & Outreach, TUDHST

#74/2, Jarakabande Kaval | Post: Attur | Yelahanka | Bangalore 560 064 | INDIA
tdu.edu.in

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY
JNANA SANGAMA BELGAVI- 590018**



INTERNSHIP REPORT (18BT185)

**“ENGINEERING AND MILK PROCESSING UNIT AT
MOTHER DAIRY”**

Submitted in partial fulfilment of the requirements for the award of degree of

BACHELOR OF ENGINEERING IN BIOTECHNOLOGY

For the Academic year 2020-2024

Submitted by
CHAITRA C MUDUKANAGOUDRA
1MV20BT010

Under the guidance of

MUNIRAJU

Refrigeration unit Manager, Mother Dairy.

and

DR ISHWAR CHANDRA

Assistant professor, Dept of Biotechnology, Sir MVIT

DEPARTMENT OF BIOTECHNOLOGY



**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
HUNASAMARANAHALLI, BENGALURU-562157**

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
HUNSAMARANAHALLI, BENGALURU – 562157
DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the Internship work entitled “**Engineering and milk processing section**” at Mother Dairy-The unit of KMF is a bonafide work carried out by **Ms. Chaitra C Mudukanagoudra(1MV20BT010)** in partial fulfilment for the award of Degree of Bachelor of Engineering in Biotechnology under Visvesvaraya Technological University, Belgaum during the year 2020-2024. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the Bachelors of Engineering Degree.

Signature of Guide

Dr. Ishwar Chandra

Assistant Professor

Dept of biotechnology

Signature of HOD

Dr. H G Nagendra

Prof & head

Dept of Biotechnology

PRINCIPAL

Signature of Principal
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
Krishnadevarayanagar, Hunsamaranahalli
International Airport Road, Bangalore-562157
Dr. Rakesh S G

Principal

Sir MVIT

Name of the External Examiners:

1. Dr. Chaitan B S.
2. Dr. Sudesh Basu

Signature of the External Examiners:

Signature of Chaitan B S. 27/5/24
Signature of Sudesh Basu 27/05/2024

MOTHER DAIRY THE UNIT OF KMF

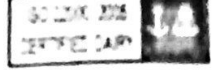


ಕರ್ನಾಟಕ ಸಹಕಾರಿ ಹಾಲು ಉತ್ಪಾದಕರ ಮಹಾಮಂಡಲ ನಿಯಮಿತ

ಘಟಕ : ಮದರ್ ಡೇರಿ, ಯೆಲಹಂಕ, ಬೆಂಗಳೂರು

KARNATAKA CO-OPERATIVE MILK PRODUCER'S FEDERATION LTD.,

UNIT MOTHER DAIRY, YELAHANKA, BANGALORE



Ref

No.MD/ADMN/56A/2023-24

Date

Date:27-09-2023

CERTIFICATE

This is to certify that Ms. Chaitra C Mudukanagoudra, USN No:1MV20BT010, BE a student of Sir M Visvesvaraya Institute of Technology, Bangaluru has successfully completed Internship Project work Training program at Mother Dairy Yelahanka, Bengaluru a unit of KMF from dtd:22-08-2023 to 21-09-2023.

MANAGER(ADMIN)

Mother Dairy

ಯೆಲಹಂಕ, ಜಿ.ಕೆ.ವಿ.ಕೆ. ಕಂಪ್ಲೆ, ಬೆಂಗಳೂರು - 560 065.

Yelahanka G.K.V.K. Post, Bangalore-560 065 Phone : 080-22179000, 28463833, 28460162

Fax 080-28462652 E-mail pa2director@motherdairykmf.in Visit us at kmfmandini.coop

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY
JNANA SANGAMA BELGAVI- 590018**



INTERNSHIP REPORT (18BT185)

**“ENGINEERING AND MILK PROCESSING UNIT AT
MOTHER DAIRY”**

Submitted in partial fulfilment of the requirements for the award of degree of

BACHELOR OF ENGINEERING IN BIOTECHNOLOGY
For the Academic year 2020-2024

Submitted by
CHANDINI P
1MV20BT011

Under the guidance of
MUNIRAJU

Refrigeration unit Manager, Mother Dairy.

and

DR ISHWAR CHANDRA
Assistant professor, Dept of Biotechnology, Sir MVIT

DEPARTMENT OF BIOTECHNOLOGY



**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
HUNASAMARANAHALI, BENGALURU-562157**

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

HUNSAMARANAHALLI, BENGALURU – 562157

DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the Internship work entitled “Engineering and milk processing section” at Mother Dairy-The unit of KMF is a bonafide work carried out by **Ms. Chandini P (1MV20BT011)** in partial fulfilment for the award of Degree of Bachelor of Engineering in Biotechnology under Visvesvaraya Technological University, Belgaum during the year 2020-2024. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the Bachelors of Engineering Degree.

Signature of Guide

Dr. Ishwar Chandra

Assistant Professor

Dept of biotechnology

Signature of HOD

Dr. H G Nagendra

Prof & head

Dept of Biotechnology

PRINCIPAL

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
Krishnadevarayanagar, Hunsamaranahalli
International Airport Road, Bangalore-562 157

Dr. Rakesh S G

Principal

Sir MVIT

Name of the External Examiners:

1. Dr. Chaitra . B . S .
2. Dr. Sudesh Basu

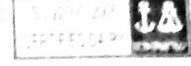
Signature of the External Examiners:

MOTHER DAIRY THE UNIT OF KMF



ಕರ್ನಾಟಕ ಸಹಕಾರಿ ಹಾಲು ಉತ್ಪಾದಕರ ಮಹಾಮಂಡಲ ಸಂಘ

ಸ್ಥಾನ : ಬೆಂಗಳೂರು, ಯಲಹಂಕ, ಬೆಂಗಳೂರು



KARNATAKA CO-OPERATIVE MILK PRODUCER'S FEDERATION LTD.,
UNIT - MOTHER DAIRY, YELAHANKA, BANGALORE

Ref

No.MD/ADMN/56A/2023-24

Date

Date:27-09-2023

CERTIFICATE

This is to certify that **Ms.Chandini P, USN No:1MV20BT011, BE** a student of Sir M Visvesvaraya Institute of Technology, Bangaluru has successfully completed Internship Project work/Training program at Mother Dairy Yelahanka, Bengaluru a unit of KMF from dtd:22-08-2023 to 21-09-2023.

MANAGER(ADMIN)

Mother Dairy

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

JNANA SANGAMA, BELAGAVI- 590018



INTERNSHIP REPORT (18BT185)

On

**“COMPARATIVE ANALYSIS ON THE CODON USAGE PATTERNS IN
Brucellosis Suis”**

Submitted in partial fulfilment of the requirements for the award of degree of

Bachelor of Engineering in Biotechnology

For the Academic Year 2020-2024

Submitted by

CHETHANA R C

(1MV20BT012)

Under the guidance of

DR. K P Suresh

Principal Scientist, Spatial Epidemiology Lab, ICAR-NIVEDI

& MS. Shijili M, ICAR-NIVEDI

And

DR. Ishwar Chandra

Assistant Professor, Department of Biotechnology, Sir MVIT

DEPARTMENT OF BIOTECHNOLOGY



SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

HUNASAMARANAHALI, BENGALURU-562157

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY
JNANA SANGAMA BELGAVI- 590018**



INTERNSHIP REPORT (18BT185)

**“ENGINEERING AND MILK PROCESSING UNIT AT
MOTHER DAIRY”**

Submitted in partial fulfilment of the requirements for the award of degree of

BACHELOR OF ENGINEERING IN BIOTECHNOLOGY

For the Academic year 2020-2024

Submitted by
Dheeraj M R
1MV20BT013

Under the guidance of

MUNIRAJU

Refrigeration unit Manager, Mother Dairy.

and

DR ISHWAR CHANDRA

Assistant professor, Dept of Biotechnology, Sir MVIT

DEPARTMENT OF BIOTECHNOLOGY



**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
HUNASAMARANAHALLI, BENGALURU-562157**

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
HUNSAMARANAHALLI, BENGALURU – 562157
DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the Internship work entitled “**Engineering and milk processing section**” at Mother Dairy-The unit of KMF is a bonafide work carried out by **Mr. Dheeraj M R (1MV20BT013)** in partial fulfilment for the award of Degree of Bachelor of Engineering in Biotechnology under Visvesvaraya Technological University, Belgaum during the year 2020-2024. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the Bachelors of Engineering Degree.


Signature of Guide

Dr. Ishwar Chandra

Assistant Professor


Dept of biotechnology


Signature of HOD

Dr. H G Nagendra

Prof & head

Dept of Biotechnology




PRINCIPAL
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
Krisnadevarayana Nagar, Hunsamaranahalli
Internal Dr. R. K. Reddy, Bangalore-562 157

Principal

Sir MVIT

Name of the External Examiners:

1. **Dr. Chaitra B.S.**
2. **Dr. Sudeshi Basu**

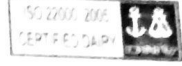
Signature of the External Examiners:

27/5/24

27/05/2024

MOTHER DAIRY THE UNIT OF KMF



ಕರ್ನಾಟಕ ಸಹಕಾರಿ ಹಾಲು ಉತ್ಪಾದಕರ ಮಹಾಮಂಡಲ ಸಂಯಮಿತ

ಘಟಕ : ಮದರ್ ಡೇರಿ, ಯಲಹಂಕ, ಬೆಂಗಳೂರು



KARNATAKA CO-OPERATIVE MILK PRODUCER'S FEDERATION LTD.,
UNIT : MOTHER DAIRY, YELAHANKA, BANGALORE

Ref No.MD/ADMN/56A/2023-24

Date:27-09-2023

CERTIFICATE

This is to certify that **Mr.Dheeraj M.R**, USN No:1MV20BT013,
BE a student of Sir M Visvesvaraya Institute of Technology,
Bangaluru has successfully completed Internship Project
work/Training program at Mother Dairy Yelahanka, Bengaluru a
unit of KMF from dtd:22-08-2023 to 21-09-2023.

MANAGER(ADMIN)

Mother Dairy

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY
BELAGAVI**



**INTERNSHIP REPORT (18BTI85)
On
DNA ISOLATION AND PCR AMPLIFICATION OF PLANT
SAMPLES USING CYTOCHROME OXIDASE**

Submitted in partial fulfilment of the requirements for the award of

Bachelor of Engineering in Biotechnology

For the academic year 2020-2024

Submitted by:

HARSHITHA K (1MV20BT014)

Internship carried out at

The University of Trans Disciplinary Health Science & Technology (TDU)

Internal Guide:

DR. MRINALINI MENON
Associate Professor,
Department of Biotechnology
Sir MVIT, Bengaluru- 562159

External Guide:

DR. PAVITHRA N
Assistant Professor,
Functional Genomics and
Bioinformatics, TDU, Yelahanka



**DEPARTMENT OF BIOTECHNOLOGY
SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY
Bengaluru-562157**

SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU
DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the internship undertaken by **HARSHITHA K** in **The University of Trans-Disciplinary Health Sciences and Technology** of VIII Semester, bearing the USN No. **1MV20BT014** of the Department of Biotechnology is a bonafide work carried out in partial fulfilment for the award of Bachelor's degree in Biotechnology Engineering prescribed by the **Visvesvaraya Technological University, Belgaum** during the year 2020-2024. It is certified that all the corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The internship report has been approved as it satisfies the academic requirements in respect of internship prescribed for Bachelor of Engineering degree.

Signature of Internal Guide

Dr. Mrinalini Menon
Associate Professor,
Department of Biotechnology,
Sir MVIT, Bengaluru

Signature of HoD

Dr. H.G Nagendra
Head of Department,
Department of Biotechnology
Sir MVIT, Bengaluru

PRINCIPAL

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
Krishnadevarayanagar, Hunsur, Bangalore
International Airport Road, Bangalore-562 157

Signature of Principal
Prof. Rakesh S.G
Principal,
Sir MVIT, Bengaluru

Name of Examiners

1. Dr. Chaitu . B . S .
2. Dr. Suden Basu

Signature of Examiners

27/5/24
 27/05/2024

INTERNSHIP CERTIFICATE



THE UNIVERSITY OF TRANS-DISCIPLINARY
HEALTH SCIENCES & TECHNOLOGY
Karnataka State Private University

Date: 21-09-2023
Bengaluru

This is to certify that Ms. Harshitha K, 7th semester student of Bachelors of Engineering (Biotechnology) from Sir M Visvesvaraya Institute of Technology, has successfully completed the "Skill Based Internship" under the guidance of Dr. Pavithra N, Assistant Professor, TDU from 16th August 2023 to 16th September 2023. During this period, she was provided hands-on training on "Isolation of Genomic DNA, PCR and Primer Designing" and we wish her all the best in her future endeavors.

Srividya Venkatesh
21/09/2023

Srividya Venkatesh

Assistant Register (HR)
The University of Trans-Disciplinary Health
Sciences and technology (TDU), Bengaluru

Dr. Pavithra N

Dr. Pavithra N

Assistant Professor,
Functional Genomics & Bio-informatics,
TDU, Bengaluru

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY
JNANA SANGAMA, BELAGAVI-590018**



INTERNSHIP ON
***“Detection of changes in DNA Methylation
using Pyro-sequencing”***

Submitted in partial fulfilment for award of degree of
BACHELOR OF ENGINEERING IN BIOTECHNOLOGY
For the Academic Year 2020-2024

Submitted By
Hitha M
1MV20BT015

Internship carried out at
National Institute of Mental Health And Neurosciences

Internal guide
Dr. Rajendra Singh C
Associate Professor, Department of
Biotechnology, Sir MVIT Bengaluru-
562157

External guide
Dr. Venkataram Shivakumar
Scientist – D (Psychiatry),
Department of Integrative Medicine,
NIMHANS, Bengaluru



DEPARTMENT OF BIOTECHNOLOGY
SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY
BENGALURU-562157

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
HUNASAMARANAHALLI, BENGALURU - 562157
DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the internship work entitled "**Detection of changes in methylation using Pyro-sequencing**" is a bonafide work carried out by **Ms. HITHA M (1MV20BT015)**, student of Sir M Visvesvaraya Institute of Technology, Bangalore from National Institute of Mental Health and Neurosciences (NIMHANS) during the year 2023 in partial fulfilment of the internship program. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the Bachelors of Engineering Degree.

PRINCIPAL

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
Krisnadevarayanagar, Hunasamaranahalli
Bangalore-562 157

Prof. Rakesh S. G

Signature of Internal Guide
Dr. Rajendra Singh C

Signature of HOD
Dr. H. G. Nagendra

Student name:

HITHA M (1MV20BT015)

External Viva

Name of Examiners

Dr. Chaitu B.S.

Dr. Sudeshi Basu

Signature with Date

27/5/24

27/05/2024

CERTIFICATE



NATIONAL INSTITUTE OF MENTAL HEALTH & NEUROSCIENCES.
BANGALORE - 560 029

Department of Integrative Medicine

No NIMH/HOS/IMD/2023-24

16th September 2023

EXPERIENCE LETTER

Ms. Hitha M. B.E. Biotechnology, student from Sir M Visvesvaraya Institute of Technology, has been an observer at the Department of Integrative Medicine (IMD), NIMHANS, Bengaluru from 16.08.2023 to 16.09.2023.

Ms. Hitha spent time at the lab at IMD observing molecular biology techniques like nucleic acid extraction, gene expression, epigenetic assays such as methylation and sequencing.

Ms. Hitha has shown immense interest in the lab activities and has been regularly observing the lab activities.

Dr Kishore Kumar R
Professor of Ayurveda and Head
Department of Integrative Medicine
NIMHANS, Bengaluru

ಡಾ. ಕಿಶೋರ್ ಕುಮಾರ್ ಆರ್
ಅಯುರ್ವೇದ ಪ್ರಾಧ್ಯಾಪಕರು ಹಾಗೂ ವಿಭಾಗದ ಮುಖ್ಯಸ್ಥರು
ಸಂಯೋಜಕ ಚಿಕಿತ್ಸಾ ವಿಭಾಗ, ನಿಮ್ಹಾನ್ಸ್, ಬೆಂಗಳೂರು-29

डा. किशोर कुमार आर
आयुर्वेद प्राध्यापक और विभागाध्यक्ष
चिकित्सा विभाग, निम्हान्स, बेंगलूरु-२९

Dr. KISHORE KUMAR R
of Ayurveda and Head of the Department
Integrative Medicine NIMHANS, Bengaluru-29

VISVESVARAYA TECHNOLOGICAL UNIVERSITY



JNANA SANGAMA, BELAGAVI-590018

INTERNSHIP ON

***"Genomics, Proteomics and
Transcriptomics"***

Submitted in partial fulfilment for award of degree of

BACHELOR OF ENGINEERING IN BIOTECHNOLOGY

For the Academic Year 2019-2023

Submitted By

1MV20BT019

PRITHVI RAVI

Internship carried out at

**Crop Physiology Department,
University of Agricultural Sciences**

Internal Guide:

Dr. P Hariharan

Assistant Professor

Department of Biotechnology, Sir MVIT

External Guide:

Dr. Sheshashayee M. Sreeman

Department of Crop Physiology

University of Agricultural Sciences (GKVK)



DEPARTMENT OF BIOTECHNOLOGY

SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY

HUNASAMARANAHALLI, BENGALURU-562157


**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
HUNASAMARANAHALLI, BENGALURU – 562157
DEPARTMENT OF BIOTECHNOLOGY**




CERTIFICATE

This is to certify that the internship work entitled “**Genomics, Proteomics and Transcriptomics**” is a bonafide work carried out by **PRITHVI RAVI(1MV20BT019)**, student of Sir M Visvesvaraya Institute of Technology, Bangalore at Crop Physiology Department, University of Agricultural Sciences during the year 2023 in partial fulfilment of the internship program. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the Bachelors of Engineering Degree.


Signature of Internal Guide
Dr. P Hariharan


Signature of HOD
Dr. H. G. Nagendra


Signature of Principal
Prof. Rakesh S.G.
PRINCIPAL

Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
Krishnadevarayanagar, Hunasamaranahalli,
International Airport Road, Bangalore-562157.


Student name:

PRITHVI RAVI (1MV20BT019)

Name of the External Examiners

Signature with Date

1. Dr. Chaitra . B.S


28/5/24

2. Dr. Sudeshi Basu


28/05/2024



UNIVERSITY OF AGRICULTURAL SCIENCES
Department of Crop Physiology, GKVK Campus, Bengaluru 560 065

Dr. M.S. SHESHSHAYEE FNAASc
Professor and University Head

CERTIFICATE

This is to Certify that, Mr. PRITHVI RAVI, student of 7th semester B.E. Biotechnology, Department of Biotechnology, Sir M Visvesvaraya Institute of Technology, Bangalore-57 has successfully completed a 1 month internship programme on "**Genomics, Proteomics and Transcriptomics**" under my Guidance and Supervision during the period of August 2023 and September 2023 at The Department of Crop Physiology, University of Agricultural Sciences (GKVK), Bangalore-65.

During the internship Programme, Mr. PRITHVI RAVI, has shown great interest and enthusiasm towards the work. His commitment and inquisitive attitudes are worth appreciating. His character and conduct were satisfactory.

A handwritten signature in black ink, appearing to read 'Sheshshayee V. Sreeman'.

14/9/23
Dr. Sheshshayee V. Sreeman
Department of Crop Physiology
University of Agricultural Sciences (GKVK)

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY
JNANA SANGAMA BELGAVI- 590018**



INTERNSHIP REPORT (18BT185)

**“SSR MARKER PROFILING OF JACKFRUIT (*Artocarpus heterophyllus*)
GENOTYPES ”**

Submitted in partial fulfilment of the requirements for the award of degree of
BACHELOR OF ENGINEERING IN BIOTECHNOLOGY

For the Academic Year 2023-2024

Submitted by

**KEERTHANA S K
(1MV20BT016)**

Under the guidance of

DR.SHYAMALAMMA

Professor and Head Department of Plant Biotechnology, University Of
Agricultural Sciences (GKVK) and

DR.RASHMI K V

Associate Professor, Dept of Biotechnology, Sir MVIT

DEPARTMENT OF BIOTECHNOLOGY



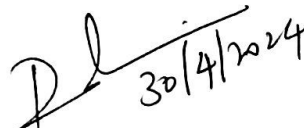
**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
HUNSAMARANAHALLI, BENGALURU – 562157**

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, BENGALURU
DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the project work entitled “**SSR MARKER PROFILING OF JACKFRUIT (*Artocarpus heterophyllus*) GENOTYPES**” is a bonafide work carried out by **Ms. KEERTHANA S K (1MV20BT016)** in partial fulfillment of the internship program, from Department of Plant Biotechnology, GKVK for the award of Degree of Bachelor of Engineering in Biotechnology under Visvesvaraya Technological University, Belgaum during the year 2020-2024. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelors of Engineering Degree.


Signature with date

Dr. Rashmi K V
Internal Guide
Dept. of Biotechnology


Signature with date

Dr. H G Nagendra
Professor & Head
Dept. of Biotechnology



Signature with date

Dr. Rakesh S G
Principal
Sir MVIT

Name of the External Examiners:

1. *Dr. Chaitra B.S*

Signature of the External Examiners:


28/5/24

2. *Dr. Sudeshi Basu*


28/05/2024

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

JNANA SANGAMA, BELAGAVI- 590018



INTERNSHIP REPORT (18BT185)

On

“QUALITY TERY ON NANDINI MILK PRODUCTS”

Submitted in partial fulfilment of the requirements for the award of degree of

Bachelor of Engineering in Biotechnology

For the Academic Year 2020-2024

Submitted by

NITHIN B M

1MV20BT018

Internship carried out at

**KOLAR CHIKKABALLAPURA DISTRICT CO-OPERATIVE MILK
UNION LTD.,KOLAR**

Internal guide:

Dr. Ishwar Chandra

Assistant professor

Department of Biotechnology

External guides:

Ms GAYITHRI DEVI

MANAGER

KOMUL

DEPARTMENT OF BIOTECHNOLOGY



SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY


HUNASAMARANAHALLI, BENGALURU-562157

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
HUNASAMARANAHALLI, BENGALURU-562157
DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the internship work entitled "Quality Test on Nandini Milk Products" is a bonafide work carried by **Mr. NITIHN BM (1MV20BT018)** student of Sir M Visvesvaraya Institute of Technology, Bangalore from Kolar- Chikkaballapura District Co-Operative Milk Union Ltd., Kolar. During the year 2023 in partial fulfilment of the internship program. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the Bachelors of Engineering Degree.


Dr . Ishwar Chandra

Internal Guide

Assistant professor,

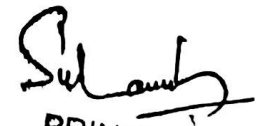
Department of Biotechnology


Dr . H G Nagendra

Professor and Head

Department of Biotechnology

Sir MVIT



PRINCIPAL

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
Krishnadevarayagagar, Hunasamaranahalli
International Airport Road, Bangalore-562157


Principal


Sir MVIT

Name of the Examiners

1. Dr. Chaitra . B . S
2. Dr. Sudeshi Basu

Signature with date

 28/5/24

 28/5/2024



ಕೊಲಾರ-ಚಿಕ್ಕಬಳ್ಳಾಪುರ ಜಿಲ್ಲಾ ಸಹಕಾರ ಹಾಲು ಉತ್ಪಾದಕರ ಸಂಘಗಳ ಒಕ್ಕೂಟ ಸಂಘದಿತಿ
Kolar-Chikkaballapura District Co-Operative Milk Producers Societies Union Ltd.,

KCMU : ADMN : 9779 : 2023-24

Date : 25.01.2024

CERTIFICATE

This is to certify that NITHIN.B.M (Reg No : 1MV20BT018)

Sir M.Visvesvaraya Institute of Technology, Bangalore student studying

B.E (Bio Technology) has undertaken Internship Project in dairy entitled as

"NANDINI PRODUCTS QUALITY TEST" at Kolar-Chikkaballapur District

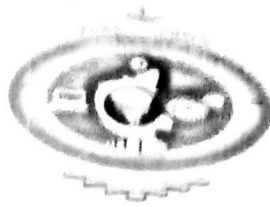
Co-operative Milk Producers Societies Union Ltd., Kolar.

For Kolar-Chikkaballapur Milk Union Limited,

Manager (Admn)

Manager (Admin),

Kolar-Chikkaballapur Dist Co-operative Milk
Producers Societies Union Limited,
KOLAR.



INTERNSHIP REPORT (18BT185)

**"A STUDY ON PRODUCTION OF SOAP AND DETERGENT & ITS
QUALITATIVE ANALYSIS"**

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

BACHELOR OF ENGINEERING
In
BIOTECHNOLOGY ENGINEERING

Submitted by:
ROHITH T. R
(1MV20BT020)

Internship carried out at
KARNATAKA SOAPS AND DETERGENT LIMITED
Yeshwanthpur, Bengaluru, Karnataka-560086

Internal Guide:
r. Rashmi K.V
Associate Professor
Dept of Biotechnology
MVIT, Bengaluru-562157

External Guide:
Sri. M.N. Nagaraj
Manager
Dept of quality & development
KSLD, Bengaluru- 560086



DEPARTMENT OF BIOTECHNOLOGY ENGINEERING

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
BENGALURU 2023-2024

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belgaum, Karnataka)
DEPARTMENT OF BIOTECHNOLOGY ENGINEERING



CERTIFICATE

This is to certify that **ROHITH T.R (1MV20BT020)**, a bonafide student of **SIR M. Visvesvaraya Institute of Technology, Bengaluru** has satisfactorily completed training on the topic "**A Study On Production of Soap and Detergent & Its Qualitative Analysis**" at **Karnataka Soaps and Detergent Limited** in partial fulfillment of the requirements as prescribed by the VTU for the award of **Bachelor of Engineering in Biotechnology Engineering** and submitted this report during the academic year **2023-2024**.


Signature of Internal guide

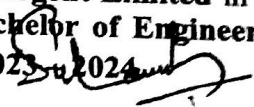
Dr. Rashmi K V

Associate Professor
Department of Biotechnology
Sir MVIT


Signature of HOD

Dr. H. G. Nagendra

Prof & HOD
Department of Biotechnology
Sir MVIT


PRINCIPAL
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
Krishnadevarayanagar, Hunsur, Mysore
International Airport Road, Bengaluru-562157

Prof. Rakesh S G


Principal
Sir MVIT


External guide :

Name of the Examiners

1. **Dr. Chaitra . B . S**
2. **Dr. Sudesh Basu**

Signature with Date


28/5/24


28/05/2024



KARNATAKA SOAPS & DETERGENTS LIMITED.

BANGALORE-55

(A Government of Karnataka Undertaking)

No. 27, Industrial Suburb, P.B No: 5531

Bengaluru-Pune Highway, Rajajinagar, Bengaluru-560055, KARNATAKA

CERTIFICATE

NO: KSDL/HRD/DGM (TRAINING)/23-24/400

Date: 16.09.2023

This is to certify that **Mr. Rohith.T.R, Reg.No:1MV20BT020**, Student of B.E (Biotechnology), Sir M.Visvesvaraya Institute of Technology, Hunasamaranahalli, Bangalore-562157, has completed his Internship work on "A Study on Manufacturing, Production Process and Quality Analysis" at Karnataka Soaps & Detergents Limited Bengaluru-560055 period from:18.08.2023 to 16.09.2023

During Internship work on his academic ability and character was good.

DEPUTY GENERAL MANAGER
Human Resource Development

LAXMAN L.D

Dy. Gen Manager (HRD)
KARNATAKA SOAPS AND DETERGENTS LTD.
BANGALORE-560055

Place: Bengaluru



VISVESVARAYA TECHNOLOGICAL UNIVERSITY

JNANA SANGAMA, BELAGAVI- 590018



INTERNSHIP REPORT (18BT185)

On

“EVOLUTIONARY MODEL ANALYSIS OF ASFV (African Swine Fever Virus)”

Submitted in partial fulfilment of the requirements for the award of degree of

Bachelor of Engineering in Biotechnology

For the Academic Year 2020-2024

Submitted by

S. LAVANYA RAJU

1MV20BT021

Internship carried out at

**ICAR-National Institute of Veterinary Epidemiology and Diseases
Informatics (NIVEDI)**

Internal guide:

Dr. Ishwar Chandra

Assistant professor

Department of Biotechnology

External guides:

Dr. K P Suresh

Ms. Shijili M

ICAR-NIVEDI

DEPARTMENT OF BIOTECHNOLOGY



SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

HUNASAMARANAHALLI, BENGALURU-562157

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
HUNASAMARANAHALLI, BENGALURU-562157
DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the internship work entitled “**EVOLUTIONARY MODEL ANALYSIS OF ASFV (African Swine Fever Virus)**” is a bonafide work carried by **Ms. S, Lavanya Raju (1MV20BT021)** student of Sir M Visvesvaraya Institute of Technology, Bangalore from ICAR- National Institute of Veterinary Epidemiology and Diseases Informatics during the year 2023 in partial fulfilment of the internship program. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the Bachelors of Engineering Degree.

Dr . Ishwar Chandra
Internal Guide

Assistant professor,
Department of Biotechnology

Dr . H G Nagendra
Professor and Head

Department of Biotechnology
Sir MVIT

PRINCIPAL
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
Krishnadevaraya Road, Hunasamaranahalli
International Airport Road, Bangalore-562 157
Prof . Rakesh Sagar
Principal

Sir MVIT

Name of the Examiners

1. **Dr. Chaitea . B . S**
2. **Dr. Sudani Basu**

Signature with date

28/5/24

28/05/24

CERTIFICATE



ಇದೇ ದಿನಾಂಕದಿಂದ ಈ ಕೆಳಕಂಡಂತಿರುವವರಿಗೆ ಈ ಕೆಳಕಂಡಂತಿರುವವರಿಗೆ
ಇದೇ ದಿನಾಂಕದಿಂದ ಈ ಕೆಳಕಂಡಂತಿರುವವರಿಗೆ ಈ ಕೆಳಕಂಡಂತಿರುವವರಿಗೆ
ICAR - National Institute of Veterinary Epidemiology and Disease Informatics
(NIVEDI), Bengaluru, Karnataka, India.
Bengaluru, Karnataka, India.



TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Ms. S. Lavanya Raju**, BE (Biotechnology) student from **Sri Visvesvaraya Institute of Technology**, Krishnadevarayanagar, Bengaluru, has successfully completed a one-month internship from 16.08.2023 to 22.09.2023 at Spatial Epidemiology Lab, ICAR - National Institute of Veterinary Epidemiology and Disease Informatics (NIVEDI), Bengaluru. During the internship, she had hands-on training in Evolutionary analysis using various Bioinformatics tools.

Dr K P Suresh,
Principal Scientist,
Spatial Epidemiology Lab,
ICAR-NIVEDI

Dr K P Suresh, Principal Scientist,
Spatial Epidemiology Lab,
ICAR-NIVEDI,
Bengaluru, Karnataka, India.

VISVESVARAYA TECHNOLOGICAL UNIVERSITY
JNANA SANGAMA, BELAGAVI- 590018



INTERNSHIP REPORT (18BT185)

On

“Genomic Insights into *Brucella abortus*: A Next-Generation Sequencing Analysis”

Submitted in partial fulfilment of the requirements for the award of degree of

Bachelor of Engineering in Biotechnology

For the Academic Year 2020-2024

Submitted by

SAHANA L

1MV20BT022

Internship carried out at

**ICAR-National Institute of Veterinary Epidemiology and Diseases
Informatics (NIVEDI)**

Internal guide:

Dr. Ishwar Chandra

Assistant professor

Department of Biotechnology

External guides:

Dr. K P Suresh

Ms. Shijili M

ICAR-NIVEDI

DEPARTMENT OF BIOTECHNOLOGY



SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

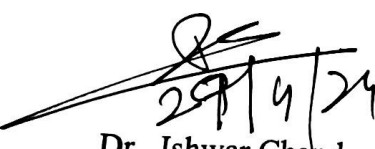
HUNASAMARANAHALLI, BENGALURU-562157

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
HUNASAMARANAHALLI, BENGALURU-562157
DEPARTMENT OF BIOTECHNOLOGY

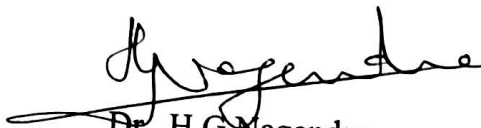


CERTIFICATE


This is to certify that the internship work entitled "**Genomic Insights into *Brucella abortus*: A Next-Generation Sequencing Analysis**" is a bonafide work carried by **Ms. SAHANA L (1MV20BT022)** student of Sir M Visvesvaraya Institute of Technology, Bangalore from ICAR-National Institute of Veterinary Epidemiology and Diseases Informatics during the year 2023 in partial fulfilment of the internship program. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the Bachelors of Engineering Degree.


29/4/24
Dr . Ishwar Chandra
Internal Guide

Assistant professor,
Department of Biotechnology


Dr . H G Nagendra
Professor and Head

Department of Biotechnology
Sir MVIT


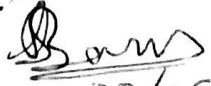

PRINCIPAL
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
Krishnadevarayanagar, Hunasamaranahalli
International Airport Road, Bangalore-562 157

Principal
Sir MVIT

Name of the Examiners

1. Dr. Chaitra . B.S
 2. Dr. Sudevi Baru
-

Signature with date

.....28/5/24.....

28/05/2024

CERTIFICATE



ಆರ್.ಎಂ.ಎಸ್. ಸ್ಪೇಷಿಯಲ್ ಲ್ಯಾಬ್, ಇನ್‌ಫಾರ್ಮೇಟಿಕ್ಸ್ ಲ್ಯಾಬ್, ಇನ್‌ಫಾರ್ಮೇಟಿಕ್ಸ್ ಲ್ಯಾಬ್
ಆರ್.ಎಂ.ಎಸ್. ಸ್ಪೇಷಿಯಲ್ ಲ್ಯಾಬ್, ಇನ್‌ಫಾರ್ಮೇಟಿಕ್ಸ್ ಲ್ಯಾಬ್, ಇನ್‌ಫಾರ್ಮೇಟಿಕ್ಸ್ ಲ್ಯಾಬ್
ICAR-National Institute of Veterinary Epidemiology and Disease Informatics
ICAR-NIVEDI
Rajawadehalli, Post Box No. 6450, Yelahanka, Bengaluru - 560064, INDIA



TO WHOMSOEVER IT MAY CONCERN

This is to certify that Ms. Sahana T. B. (Biotechnology) student from Sir Visvesvaraya Institute of Technology, Krishnadevarayanagar, Bengaluru, has successfully completed a one-month internship from 16-08-2023 to 22-09-2023 at Spatial Epidemiology Lab, ICAR-National Institute of Veterinary Epidemiology and Disease Informatics (NIVEDI), Bengaluru. During the internship, she had hands-on training in Next generation sequencing data analysis using various Bioinformatics tools.

[Handwritten signature]

Dr K P Suresh,
Principal Scientist,
Spatial Epidemiology Lab,
ICAR-NIVEDI

[Handwritten signature]
Dr. K.P. Suresh,
Principal Scientist (Biostatistics)
ICAR-NIVEDI, PB No. 6450
(Govt. of India)
Yelahanka, Bengaluru-560064

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY
JNANA SANGAMA BELGAVI- 590018**



INTERNSHIP REPORT (18BT185)

“STRUCTURAL STUDIES OF AMYLIN”

Submitted in partial fulfilment of the requirements for the award of degree of
BACHELOR OF ENGINEERING IN BIOTECHNOLOGY

For the Academic Year 2020-2024

Submitted by

SAMHITA B S

1MV20BT023

Under the guidance of

DR. GOVINDARAJU M

Scientific Officer, Molecular Biophysics Unit, Indian Institute of Science

DR. JAGADEESH KUMAR D

Associate Professor, Dept of Biotechnology, Sir MVIT

and

DR. PRIYA NARAYAN

Professor, Dept of Biotechnology, Sir MVIT

DEPARTMENT OF BIOTECHNOLOGY



**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
HUNSAMARANAHALLI, BENGALURU – 562157**

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, BENGALURU
DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the project work entitled “**STRUCTURAL STUDIES OF AMYLIN**” is a bonafide work carried out by **Ms. SAMHITA B S (1MV20BT023)** in partial fulfillment of the internship program, from Molecular Biophysics Unit, Indian Institute of Science, for the award of Degree of Bachelor of Engineering in Biotechnology under Visvesvaraya Technological University, Belgaum during the year 2020-2024. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelors of Engineering Degree.

Jagadeesh K. D.
Signature with date

Dr. Jagadeesh Kumar D
Internal Guide
Dept. of
Biotechnology

Priya Narayan
Signature with date

Dr. Priya Narayan
Internal Guide
Dept. of
Biotechnology

H G Nagendra
Signature with date

Dr. H G Nagendra
Professor & Head
Dept. of
Biotechnology

Sulambh
Signature with date

PRINCIPAL
SIR M. VISVESVARAYA INSTITUTE OF
Krishnadevaraya Nagar, Hinasan
International Airport Road, Bengaluru
Signature with date

Dr. Rakesh S G
Principal
Sir MVIT

Name of the External Examiners:

1. *Dr. Chaitra B-S*

2. *Dr. Sudeshi Bann*

Signature of the External Examiners:

Chaitra
28/5/24

Bann
28/05/2024



ಅಧ್ಯಯನ ಅಭಿವೃದ್ಧಿ ಕೇಂದ್ರ
ಅಧ್ಯಯನ ಅಭಿವೃದ್ಧಿ ಕೇಂದ್ರ
Molecular Biophysics Unit
Centre for Advanced Study

ಬೆಂಗಳೂರು - 56
Indian Institute of Science
BANGALORE - 560075

CERTIFICATE

ಇದೇ ಕೇಂದ್ರದಲ್ಲಿ, Ms. Samhita B.S. (USN: 1MV20B1023), student of 7th semester B.E. Biotechnology, Department of Biotechnology, Sir M Visvesvaraya Institute of Technology, Bangalore-57 has successfully completed a 4-week internship programme on "Conformational studies of Amylin with copper: Implications in T2DM" using Biophysical Techniques under the guidance and supervision during the period of August 2023 to September 2023 at Molecular Biophysics Unit, Division of Biological Sciences, Indian Institute of Science, Bangalore-12.

During the internship Programme, Ms. Samhita, has shown great interest and enthusiasm towards the work. Her commitment and inquisitive attitudes are worth appreciating. Her character and conduct were exemplary.

(Signature)

Dr. Gavandhar M
Molecular Biophysics Unit
IISc Bangalore

ತೆಲೆಫೋನ್ : (080) 22600459
ಫ್ಯಾಕ್ಸ್ : (080) 22600459

ತೆಲೆಫೋನ್ / ಫ್ಯಾಕ್ಸ್ : (080) 22600459 / 22600460
ಇ-ಮೇಲ್ : office@iisc.ernet.in

Department of Biotechnology

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY
JNANA SANGAMA BELGAVI - 590018**



INTERNSHIP REPORT (18BTI85)

**“Hands on Training of Bioanalytical Device: Microtome
and Inverted Optical Microscope”**

Submitted in partial fulfilment of the requirements for the award of degree of

BACHELOR OF ENGINEERING IN BIOTECHNOLOGY

For the Academic Year 2020 -2024

Submitted by

**SHRIYA ANAND BHAMBORE
1MV20BT024**

Under the guidance of

DR. D SELVAKUMAR
Scientist “G”, DEP, DEBEL-DRDO

And

DR. H G NAGENDRA
Professor & Head, Dept. of Biotechnology, SMVIT

DR. HARIHARAN P
Assistant Professor, Dept. of Biotechnology, SMVIT.

DEPARTMENT OF BIOTECHNOLOGY



**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
HUNSAMARANAHALLI, BENGALURU-562157**

**SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY
BENGALURU
DEPARTMENT OF BIOTECHNOLOGY**



CERTIFICATE

This is to certify that the internship undertaken by **SHRIYA ANAND BHAMBORE** in **DEP, DEBEL, DRDO** of VIII Semester, bearing the **USN No. 1MV20BT024** of the Department of Biotechnology is a bonafide work carried out in partial fulfilment for the award of Bachelor's degree in Biotechnology Engineering prescribed by the **Visvesvaraya Technological University, Belgaum** during the year 2020-2024. It is certified that all the corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The internship report has been approved as it satisfies the academic requirements in respect of internship prescribed for Bachelor of Engineering degree.

P. Hariharan P
Signature with date 27/5/24

Dr. Hariharan P

Assistant Professor

Internal Guide

Dept. Of Biotechnology, Sir MVIT

H. G. Nagendra
Signature with date
Dr. H G Nagendra

Professor and HOD

Internal Guide

Dept. Of Biotechnology, Sir MVIT

S. Rakesh S G
PRINCIPAL
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
Krishnaiah Nagar, Hunsur, Bangalore-562 157
International Airport Road, Bangalore-562 157
Prof. Rakesh S G

Principal

Sir MVIT

Name of Examiners

1. *Dr. Chaitra B S*
2. *Dr. Sudeshi Basu*

Signature of Examiners

Chaitra B S 28/5/24
Sudeshi Basu
28/05/2024

CERTIFICATE



Phone : (080) 22502496
Email: dhanaselva.debel@gov.in

भारत सरकार / Government of India
रक्षा मंत्रालय / Ministry of Defence
रक्षा अनुसंधान तथा विकास संगठन
Defence Research & Development Organisation
रक्षा जीव-अभियंत्रण तथा चिकित्सा इलेक्ट्रॉनिकी प्रयोगशाला
DEFENCE BIOENGINEERING & ELECTROMEDICAL LABORATORY
सी वी रामन नगर / CV Raman Nagar,
बैंगलूर - 560 093 / Bangalore - 560 093.

No. DBL HRD SP 23 I 11 65

Date: 04 10 2023

CERTIFICATE

This is to certify that Shriya Anand Bhambore (Reg. No. IMV20BT024), pursuing B.L. Biotechnology Engineering at Sir M. Visweswaraya Institute of Technology, Bengaluru has successfully completed her Internship, entitled "Hands on training of Bioanalytical Device: Microtome and inverted optical microscope" in Defence Bioengineering and Electromedical Laboratory (DEBEL), Defence Research and Development Organisation (DRDO), Ministry of Defence, C.V Raman Nagar, Bengaluru from 10/08/2023-10/09/2023.

No part of the above work shall be reproduced, communicated or published without prior written permission from Director, DEBEL, Bengaluru.

D. Selvakumar

Dr. D. Selvakumar
Scientist 'G', DEP
Guide

Aparna G. Sastry
Dr. A Aparna G Sastry
Scientist 'F'
GH, HRD

डॉ. ए. अपरणा जी. सास्त्री / Dr. A. APARNA G. SASTRY
वैज्ञानिक 'एफ' / SCIENTIST 'F'
प्रधान, मानव संसाधन विभाग / HEAD, HRD
देवेन, सी. आर. वी. नगर, रक्षा मंत्रालय / DEBEL, DRDO Min. of Defence
बैंगलूर / BENGALURU - 560093



INTERSHIP REPORT
CHARACTERIZATION OF COMPONENTS OF *Mucuna pruriens*

Submitted in partial fulfilment of the requirements for the award of the degree of

BACHELOR OF ENGINEERING IN BIOTECHNOLOGY

For the Academic Year 2020-2024

Submitted by

SYEDA AYESHA

1MV20BT025

Under the guidance of

Dr. Shridevi and Dr. Gurmeet Singh

The University of Trans-Disciplinary Health Sciences and Technology

Yelahanka, Bangalore

And

Dr. Rashmi K V

Associate Professor, Sir MVIT

Department of Biotechnology

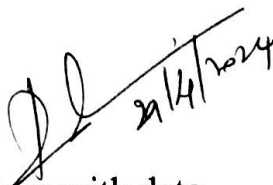


DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the project work entitled "**CHARACTERIZATION OF COMPONENTS OF *Mucuna pruriens***" is a bonafide work carried out by **Ms Syeda Ayesha (1MV20BT003)** in partial fulfilment of the internship program, from Centre for Ayurveda Biology and Holistic Nutrition, The University of Transdisciplinary Health Sciences and Technology, for the award of Degree of Bachelor of Engineering in Biotechnology under Visvesvaraya Technological University, Belgaum during the year 2020-2024. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelor of Engineering Degree.


Signature with date

Dr. Rashmi K V

Internal Guide


Dept. of Biotechnology


Signature with date

Dr. H G Nagendra

Professor and Head

Dept. of Biotechnology


PRINCIPAL
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
Krishnadevaraya Nagar, Hunasamaranahalli
International Road, Tumkur - 562 157
Signature with date

Dr. Rakesh S G



Principal

Sir MVIT

Name of the External Examiners:

1. Dr. Chaitra . B.S .
2. Dr. Suder Baru

Signature of the External Examiners:


28/5/24

28/05/2024

CERTIFICATE

TU

RIST
RURAL INDIA SUPPORTING TRUST

THE UNIVERSITY OF TRANS-DISCIPLINARY HEALTH SCIENCES & TECHNOLOGY

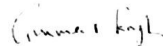
Karnataka State Private University

CERTIFICATE

This is to certify that

SYEDA AYESHA

has accomplished an internship from The University of Trans-Disciplinary Health Sciences and
Technology (TDU) on **Characterization of Components of *Mucuna pruriens***
from 16th August 2023 to 16th September 2023



Dr. Gurmeet Singh

Course Director, Professor & Dean Research & Outreach, TDU

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY
BELAGAVI, KARNATAKA**



INTERNSHIP REPORT (18BT185)

On

**MAPPING THE DIVERSITY AND DISTRIBUTION OF
FIREFLIES USING MOLECULAR TECHNIQUES**

Submitted in partial fulfilment of the requirements for the award of

Bachelor of Engineering in Biotechnology

For the academic year 2020-2024

Submitted by:

Vineeth V. Rao (1MV20BT026)

Internship carried out at

Ashoka Trust for Research in Ecology and The Environment (ATREE)

Internal Guide:

DR. MRINALINI MENON

Associate Professor,
Department of Biotechnology
Sir MVIT, Bengaluru- 562159

External Guide:

DR. G. Ravikanth

Senior Fellow,
Conservation Genetics lab
ATREE, Jakkur



**DEPARTMENT OF BIOTECHNOLOGY
SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY
Bengaluru-562157**

SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY.

BENGALURU

DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the Internship Report entitled "MAPPING THE DIVERSITY AND DISTRIBUTION OF FIREFLIES USING MOLECULAR TECHNIQUES" is submitted by Vineeth V. Rao bearing the USN No. 1MV20BT026 in partial fulfilment of the requirement for the award of Bachelor's degree in Biotechnology Engineering prescribed by the Visvesvaraya Technological University, Belagavi during the year 2020-2024. It is certified that all the corrections/suggestions indicated for internal assessment have been incorporated in the report deposited. The Internship report has been approved as it satisfies the academic requirements in respect of Internship prescribed for Bachelor of Engineering degree.

Signature of Internal Guide

Dr. Mrinalini Menon

Associate Professor,
Dept. of Biotechnology,
Sir MVIT, Bengaluru

Signature of HoD

Dr. H.G Nagendra

Head of Department
Dept. of Biotechnology
Sir MVIT, Bengaluru

Signature of Principal

Prof. S.G. Rakesh

Principal
Sir MVIT, Bengaluru

Name of Examiners

1. Dr. Chaitra, BS
2. Dr. Sudeshi Basu

Signature of Examiners

28/05/2024

3. INTERNSHIP CERTIFICATE



Ashoka Trust for Research in Ecology and the Environment

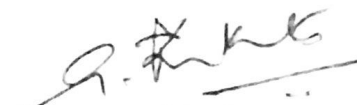
A Scientific and Industrial Research Organization recognized by
the Department of Scientific Industrial Research, Ministry of Science and Technology, Govt. of India

CERTIFICATE

This is to certify that **Mr. Vineeth V. Rao** student of Sir M. Visvesvaraya Institute of Technology, Bangalore, has successfully completed a project on **"Developing molecular tools to identify fireflies"** in partial fulfilment for the award of Bachelor of Engineering at the **Ashoka Trust for Research in Ecology and Environment** under the guidance of **Dr. G. Ravikanth** from August to September 2023.

Date 13-09-2023

Place Bengaluru


Signature of the Supervisor

Dr. G. Ravikanth
Supervisor
Ashoka Trust for Research in Ecology and the Environment
Bengaluru

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY
BELAGAVI, KARNATAKA**



**INTERNSHIP REPORT (18BT185)
On
UPSTREAM BIOPROCESSING AND
ANALYTICAL TECHNIQUES - MK7
PRODUCTION**

Submitted in partial fulfilment of the requirements for the award of
Bachelor of Engineering in Biotechnology



**DEPARTMENT OF BIOTECHNOLOGY
SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY**

Bengaluru-562157

Submitted by:

YUKTA S (1MV20BT027)

Year 2023-2024

Under the guidance of

Dr. Mrinalini Menon

Department Of Biotechnology Engineering

Sir MVIT, Bengaluru-562157

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, BENGALURU
DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the project work entitled "**Upstream bioprocessing and analytical techniques-MK7 production**" is a bonafide work carried out by Ms. Yukta S(1MV20BT027) in partial fulfillment of the internship program, from Biologics-Upstream bioprocessing, Anthem Biosciences, for the award of Degree of Bachelor of Engineering in Biotechnology under Visvesvaraya Technological University, Belgaum during the year 2020-2024. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelors of Engineering Degree.

Signature with date

Dr. Mrinalini Menon
Internal Guide
Dept. of Biotechnology

Signature with date

Dr. H G Nagendra
Professor & Head
Dept. of Biotechnology

Signature with date

Dr. Rakesh S G
Principal
Sir MVIT

Name of the External Examiners:

Signature of the External

Examiners:

1. Dr. Chaita B.S

2. Dr. Sudeni Bann

REF : ABPL/HRD/Trainee Itr

DATE : 15th September, 2023

CIN : U24233KA2006PTC039703

Tel : +91 80 6672 4000

Fax : +91 80 6672 4020

www.anthembio.com

To Whomsoever It May Concern

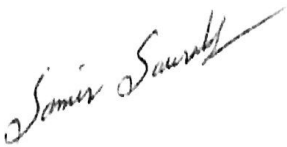
Certificate of Internship Training

This is to certify that **Ms. Yukta S** has successfully completed her internship training from 14th August, 2023 to 15th September, 2023 in Biologicals department under the guidance of **Mr.Santhosh Nagaraj**.

We found her sincere and hardworking during her tenure. We wish her all the best in her future endeavors.

Best Regards

For ANTHEM BIOSCIENCES PVT. LTD



Mr.Samir Saurabh

Sr.Manager I – Biologicals

VISVESVARAYA INSTITUTE OF TECHNOLOGY
JNANA SANGAMA, BELAGAVI – 590018



INTERNSHIP REPORT (18BT185)

**“Applications of Herbal Phytochemicals for Healing Stomach
Ulcers”**

Submitted in partial fulfilment of the requirements for the award of the degree of

BACHELOR OF ENGINEERING IN BIOTECHNOLOGY

For the Academic Year 2020 – 2024

Submitted by
JEEVAN PRANAY U
1MV20BT028

Under the guidance of

Dr. Latha Damle
Chief Scientific Officer
ATRIMED Pharmaceuticals

Mr. Anirudh Manoj
Computational Chemist
ATRIMED Pharmaceuticals

and

Dr. H G Nagendra
Professor and Head, Department of Biotechnology



DEPARTMENT OF BIOTECHNOLOGY
SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY
HUNAMARANAHALLI, BENGALURU – 562157

**SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY,
BENGALURU
DEPARTMENT OF BIOTECHNOLOGY**



CERTIFICATE

This is to certify that the project work entitled “**Applications of Herbal Phytochemicals for Healing Stomach Ulcers**” is a bonafide work carried out by **Mr. Jeevan Pranay U (1MV20BT028)** in partial fulfilment of the internship program, from Molecular Biophysics Unit, Indian Institute of Science, for the award of Degree of Bachelor of Engineering in Biotechnology under Visvesvaraya Technological University, Belgaum during the year 2019-2023. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelor of Engineering Degree.

 Signature with date  Signature with date  Signature with date

Dr. H G Nagendra
Internal Guide
Dept. of Biotechnology

Dr. H G Nagendra
Professor and Head
Dept. of Biotechnology.


Prof. Rakesh S G
Principal
Sir MVIT

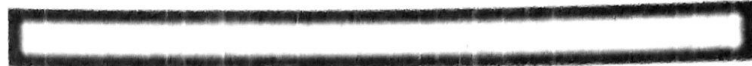
Name of the External Examiners:

1. Dr. Chaitra . B . S
2. Dr. Suderi Basu

Signature of the External Examiners:

 28/5/24


28/05/2024



Internship Certificate

This is to certify that **Mr. Jeevan Pranay** (Reg No: 1MV20BT028), B.E. student from Sir M Visvervaraya Institute of Technology, Visvervaraya Technological University (VTU) , has completed 30 days project work titled **“Applications of Herbal Phytochemicals for healing stomach ulcers”** at Atrimed Pharmaceuticals Pvt Ltd., Prestige Meridian Tower - 2, Mahatma Gandhi Road, Ashok Nagar, Bangalore, Karnataka 560001 from 16th August 2023 to 15th September 2023 under the guidance of Mr. Anirudh Manoj.

This work is the sole property of Atrimed Pharmaceuticals Pvt Ltd. and should not be reproduced or published without prior permission.

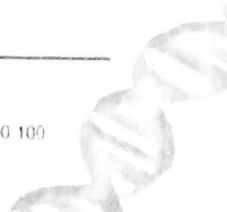
Mr. Anirudh Manoj

Project Guide

Atrimed Pharmaceuticals Pvt Ltd.,
Prestige Meridian Tower - 2,
Mahatma Gandhi Road, Ashok Nagar
Bangalore, Karnataka 560001

Dr. Latha Damle

Founder & CSO



VISVESVARAYA TECHNOLOGICAL UNIVERSITY

Belagavi-590 018



Internship Report

INTERNSHIP AT

KRISHNADEVARAYA COLLEGE OF DENTAL SCIENCES AND HOSPITAL

KANGAN M

1MV20BT029

DEPARTMENT OF BIOTECHNOLOGY

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

Bangalore, Karnataka



Under the Guidance of:

Dr. Mrinalini Menon

Associate Professor

Dept of Biotechnology Eng.,

SIRMVIT, Bengaluru.

Dr. Radhika M B

Head of the Dept.

Oral Pathology,

KCDSH, Bengaluru.





SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU

DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the **Internship** entitled "**QUANTIFICATION OF DNA, IN DRIED BLOOD, SALIVA TINTED WITH BLOOD IN COMPARISON WITH FRESH BLOOD FOR FORENSIC IDENTIFICATION- A PILOT STUDY**" is submitted by **KANGAN M** bearing the **USN No. 1MV20BT029** in partial fulfilment of the requirement for the award of Bachelor's degree in Biotechnology Engineering prescribed by the **Visvesvaraya Technological University, Belagavi** during the year 2020-2024. It is certified that all the corrections/suggestions indicated for internal assessment have been incorporated in the report deposited. The Internship report has been approved as it satisfies the academic requirements in respect of Internship prescribed for Bachelor of Engineering degree.


| | | | |
|--|---|---|--|
|  29/5/24 |  |  |  PRINCIPAL SIR M. VISVESVARAYA INSTITUTE OF TE Krishnadevarayanagar, Hunsur International Airport Road, Bangalore |
| Signature with date | Signature with date | Signature with date | Signature with date |
| Dr. Mrinalini Menon Associate Professor | Dr. Radhika M J HOD of Oral Pathology, KCDSH | Dr. H G Nagendra Professor and HOD, Sir MVIT | Prof. S G Rakesh Principal SIR MVIT |

Examiners :-

Dr. Chaitra . B.S


28/5/24

Dr. Sudar Banu


28/05/2024



KRISHNADEVARAYA COLLEGE OF DENTAL SCIENCES & HOSPITAL

(Affiliated to Rajiv Gandhi University of Health Sciences, Karnataka and Recognised by Dental Council of India, New Delhi)

Krishnadevaraya Nagar, Hunasamaranahalli, off International Airport Road, Bengaluru - 562 157

Phone : 2846 7083, 2847 7083, Fax : 080-2846 7084

e-mail : krs_dent_college@yahoo.co.in / www.kcdsh.org

(Managed by Sri Krishnadevaraya Educational Trust (P))

Ref: KCDS/ 108 /2024 - 2025

Date : 24.04.2024

Date :

CERTIFICATE

This is to certify that Ms. Kangan M, 7th semester student of Bachelors of Engineering Biotechnology from Sir M Visvesvaraya Institute of Technology, has successfully completed the "Skill Based Internship" under the guidance of Dr. Radhika Manoj Bavle, Professor and Head of the Department, Department of Oral and Maxillofacial Pathology, Krishnadevaraya College of Dental Sciences, Bengaluru from 14.08.23 to 15.09.23. During this period, she has run a short study on two topics :

1. Salivary study of biochemical nature, using multiple parameters - pH, antioxidant activity, oral health status, correlation.
2. Forensic study : saliva & blood based, DNA retrieval, quantitative study.

We wish her best of luck for future endeavours.


(Dr. Radhika M. B.)

Head of the Department
Oral and Maxillofacial Pathology and Microbiology

PROFESSOR
Dept. of Oral & Maxillofacial Pathology
Krishnadevaraya College
of Dental Sciences
Bengaluru - 562 157.


(Dr. Ponnappa A. A.)
PRINCIPAL

PRINCIPAL
Krishnadevaraya College of
Dental Sciences & Hospital
Bengaluru - 562 157.

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY
BELAGAVI, KARNATAKA**



**Hands On Training On Extraction Of
Phytocompounds And It's Applications**

Submitted by: ROHIT JOHN CHERIAN

[1MV19BT020]

Internal Guide : Dr. Priya Narayanan , Professor

Department of Biotechnology, Sir. M. Visvesvaraya Institute
Technology, Bengaluru

External Guide : Mrs. Priyanka R , Aspartika Biotech Private Ltd.
Bengaluru



DEPARTMENT OF BIOTECHNOLOGY

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

Bangalore, Karnataka

SIR M. VISVESARAYA INSTITUTE OF TECHNOLOGY

BENGALURU - 562157

(Affiliated to Visvesaraya Technological University, Belgaum, Karnataka)

Department of Biotechnology



DECLARATION

This is to certify that **ROHIT JOHN CHERIAN (1MV19BT020)**, a bondle student of SIR M Visvesaraya Institute of Technology has satisfactorily completed training on the topic "Hands on Training on Extraction of Phytochemicals and its Applications", was carried out by me at **ASPARTIKA BIOTECH, Pvt., Ltd, Bangalore** under the guidance of **Mrs. Priyanka R.** This work has been submitted for the fulfilment of the Internship program as prescribed by the VTU for the award of Bachelor of Engineering in Biotechnology Engineering and submitted this report during the academic year 2023-2024

PRINCIPAL

SIR M. VISVESARAYA INSTITUTE OF TECHNOLOGY
Krishna Chavara Nagar, Hunsur, Mysore Road,
International Airport Road, Bangalore-562 157

Signature with date

Dr. Priya Narayan

Signature with date

Dr. H. G. Nagendra

Prof. Rakesh S G

Associate Professor

Prof & HOD

Principal

Department of

Department of

Sir MVIT

Biotechnology

Biotechnology

Sir MVIT

Sir MVIT

External Viva

Name of Examiners

1 **Dr. Chaitan B.S**

2 **Dr. Sudesh Basu**

Signature With Date

28/5/24

28/05/2024



ASPARTIKA BIOTECH PRIVATE LIMITED

Reference No: ASP/11/HR-005/22-23

Date: 17/04/2024

TO WHOMSOEVER IT MAY CONCERN

This is to certify that the internship entitled "HANDS ON TRAINING ON EXTRACTION OF PHYTOCOMPOUNDS AND ITS APPLICATIONS" is a bonafied work carried out by Mr. Rohit John Cherian (USN : 1MV19BT020) student of B.E Biotechnology from Sir M Visvesvaraya Institute of Technology, Bangalore. He has successfully completed one month (11 Feb 2024 - 10 Mar 2024) internship programme. During the period of his internship programme with us, his performance was appreciable.

We wish him success in all his future endeavours.

Authorized Signatory

For ASPARTIKA BIOTECH PRIVATE LIMITED


DIRECTOR

GSTIN: 29AANCA3338F1ZK

CIN: U24232KA2015PTC079484

R & D UNIT
TECHNOLOGY INCUBATION CENTRE, SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY CAMPUS,
HUNASAMARANAHALLI, INTERNATIONAL AIRPORT ROAD, BANGALORE-562 157
PH. 080-28467735

www.aspartika.com

Email: aspartika.india@gmail.com

info@aspartika.com



MINI PROJECT REPORT ON
COMPUTATIONAL STUDIES ON LONG NEUROTOXINS FROM SNAKE VENOM
AS THERAPEUTIC MOLECULES FOR PARKINSONISM

UNDER THE GUIDANCE OF

Dr. H G NAGENDRA

HOD, BIOTECHNOLOGY

SIR MVIT

SUBMITTED BY:

SIDDHARTH V (1MV21BT016)

KEERTHAN SUBBAIAH N (1MV21BT030)

SNEHA PRADEEP (1MV21BT037)

BACHELOR OF ENGINEERING IN

BIOTECHNOLOGY



SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY

HUNASAMARANAHALLI, YELAHANKA

BENGALURU-562157

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
HUNSAMARANAHALLI, BENGALURU - 562157 DEPARTMENT OF
BIOTECHNOLOGY

CERTIFICATE

This is to certify that the project work entitled “**COMPUTATIONAL STUDIES ON LONG NEUROTOXINS FROM SNAKE VENOM AS THERAPEUTIC MOLECULES FOR PARKINSONISM**” is a bonafide work carried out by **SIDDHARTH V (1MV21BT016), KEERTHAN SUBBAIAH N (1MV21BT030), SNEHA PRADEEP (1MV21BT037)** in partial fulfilment for the award of Degree of Bachelor of Engineering in Biotechnology under Visvesvaraya Technological University, Belgaum during the year 2021-2025. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelors of Engineering Degree.



Signature of Guide

Dr. H G NAGENDRA

Head of Department

Dept of Biotechnology



PRINCIPAL

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
Krishnadevarayanagar, Hunsamaranahalli
International Airport Road, Bangalore-562 157
Signature of Principal

Prof. RAKESH S G

Principal

Sir MVIT

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY
BELAGAVI, KARNATAKA**



PROJECT REPORT ON

**An *In-vitro* study to understand the dosage dependent impact of
Antihypertensive Drugs on the region-specific modified Human Gut
Microbiota model**

Submitted in partial fulfillment of the requirement for the award of the degree of
Bachelor of Engineering
In
Biotechnology

Submitted by
N. RITHANYA SINGH- 1MV21BT007
NIRUPAMA RAGHUNATH - 1MV21BT008
SNEHA JAGADISH- 1MV21BT036

Under the guidance of
DR. PRIYA NARAYAN

Department of Biotechnology




DEPARTMENT OF BIOTECHNOLOGY
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
BANGALORE, KARNATAKA


**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY,
BENGALURU
DEPARTMENT OF BIOTECHNOLOGY**

CERTIFICATE

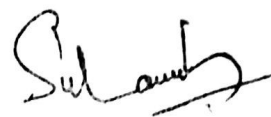


This is to certify that the Project work entitled "**An *In-vitro* study to understand the dosage dependent impact of Antihypertensive Drugs on the region-specific modified Human Gut microbiome model**" is a bona fide work carried out by **N. Rithanya Singh (1MV21BT007), Nirupama Raghunath (1MV21BT008), and Sneha Jagadish (1MV21BT036)**, bona fide students of **SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY** in partial fulfillment for the award of **Bachelor of Engineering in Department of Biotechnology** during the years 2021-2025. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The Mini project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelors of Engineering Degree.


Signature of Guide
Dr. Priya Narayan
Professor
Department of
Biotechnology
Sir MVIT


Signature of HOD
Dr. H G Nagendra
Head of Department
Department of Biotechnology
Sir MVIT

Dr H.G. Nagendra
Professor & Head
Department of Biotechnology
Sir M. Visvesvaraya Institute of Technology
BANGALORE - 562157


PRINCIPAL
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
Krishna Sankar, 100 Feet Road, Maranahalli
Internal Road, Bangalore-562 157
Signature of Principal
Dr. Rakesh S. G
Principal
Sir MVIT

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELAGAVI, KARNATAKA



MINI PROJECT REPORT (21BTMP67)

ON

**Phytochemical Characterization Of Aqueous Extract of
the inflorescence of *Stachytarpheta mutabilis*: a pilot study**

Submitted in partial fulfilment of the requirement for the award of

Bachelor of Engineering in Biotechnology

Submitted By:

Inchana A (1MV21BT003)

Manali Kulkarni (1MV21BT032)

Pavithra K P (1MV21BT034)

Under the guidance of

Dr. Mrinalini Menon

Associate Professor

DEPARTMENT OF BIOTECHNOLOGY

SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY BANGALORE

DEPARTMENT OF BIOTECHNOLOGY



2023-2024

CERTIFICATE

This is to certify that the project undertaken by Inchan A, Manali K, Pavithra K P, Sir M. Visvesvaraya Institute of Technology of VI Semester, bearing the USN No. 1MV21BT003, 1MV21BT032, 1MV21BT034 of the Department of Biotechnology is a bonafide work carried out in partial fulfillment for the award of Bachelor's degree in Biotechnology Engineering prescribed by the Visvesvaraya Technological University, Belgaum during the year 2023-2024. It is certified that all the corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project prescribed for Bachelor of Engineering degree.

PRINCIPAL

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
Krishnadevarayanagar, Hunsur, Mysore
International Airport Road, Bangalore - 560 075

5/8/24

Signature of Guide:
Dr. Mrinalini Menon
Associate Professor,
Dept. of Biotechnology

Signature of HOD:
Dr. H G Nagendra
Prof. & HOD, Biotechnology,
Sir MVIT



21BTMP67

MINI-PROJECT REPORT

ON

“HEMOSTATIC ACTIVITY OF SERICIN”

Submitted in fulfilment of the requirements for the award of degree

BACHELOR OF ENGINEERING

IN

BIOTECHNOLOGY

Submitted by

VAISHNAVI V: 1MV21BT040

VANDHANA V NAIR: 1MV21BT041

UNDER THE GUIDANCE OF

Dr. RAJENDRA SINGH C

Associate Professor

Department of Biotechnology

Sir M Visvesvaraya Institute of Technology

Hunsemaranahalli, Yelahanka, Banagalore-562157



Sir M Visvesvaraya Institute of Technology

SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY

Hunasamaranahalli, Yelahanka, Bangalore- 562157



DEPARTMENT OF BIOTECHNOLOGY ENGINEERING

CERTIFICATE

This is to certify that the project work entitled “Hemostatic Activity of Sericin” is a bonafide work carried out by Ms. Vaishnavi V [1MV21BT040] and Ms. Vandhana V Nair [1MV21BT041] in partial fulfilment for the award of degree of engineering in Biotechnology of the Visvesvaraya Technological University, Belgaum during the academic year 2021-2025. It is certified that all the corrections/suggestions indicated for the internal assessment have been incorporated in the report deposited in the departmental library. The mini project report has been approved as it satisfies the academic requirements in respect of internship prescribed for the Bachelor Engineering degree.


Dr. Rajendra Singh C

Project Guide

Associate Professor

Department of Biotechnology

Sir MVIT

Bangalore


Dr. H.G. Nagendra

Professor and HOD

Department of Biotechnology

Sir MVIT

Bangalore

Dr H.G. Nagendra

Professor & Head

Department of Biotechnology

Sir M. Visvesvaraya Institute of Technology
BANGALORE - 562157


Prof. Rakesh S.C.

PRINCIPAL

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
Krishnadevarayanagar, Hunasamaranahalli
International Airport Road, Bangalore-562 157

Sir MVIT

Bangalore

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY
BELGAVI, KARNATAKA**



**REPORT ON
REMOVAL OF HEAVY METALS USING MUSK MELON
HUSK**

Submitted in partial fulfilment of the requirement for the award of
degree of Bachelor of Engineering in biotechnology

PRADEEPA GN 1MV21BT010

SANJANA HT 1MV21BT013

RISHIK REDDY 1MV21BT023

CHIRAG C 1MV21BT026

UNDER THE GUIDANCE OF

MRS. A NIVEDITHA

Associate Professor, Department of Biotechnology, Sir MVIT



**DEPARTMENT OF BIOTECHNOLOGY
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
Bangalore, Karnataka**

DEPARTMENT OF BIOTECHNOLOGY
SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY
BENGALURU – 562157 2021 – 2022

CERTIFICATE

This is to Certify that the Mini-Project work entitled “REMOVAL OF HEAVY METALS USING MUSK MELON HUSK” is a bonafide work carried out by Mr. PRADEEPA GN , Mr. RISHIK REDDY, Mrs. SANJANA HT, Mr. CHIRAG C bearing the USN’s 1MV21BT010, 1MV21BT023, 1MV21BT013, 1MV21BT026 are bonafide students of SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY in partial fulfilment for the award of Bachelor of Engineering in Department of Biotechnology during the year 2021-2025


Signature of Guide

Department of Biotechnology


Signature of the HOD

**Department of
Biotechnology**



PRINCIPAL

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
Krishnadevarayanagar, Hunsarmanahalli
International Airport Road, Bangalore-562 157

Signature of the Principal

Sir MVIT

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY
BELAGAVI, KARNATAKA**



PROJECT REPORT ON

**“IN SILICO STUDY OF THE CRUCIAL GENES
IMPLICATED IN HYPERTENSION”**

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

Bachelor of Engineering in Biotechnology

Submitted by

SATYANARAYANA SATVIK SRIADIBHATLA- 1MV21BT015

SNEHA S- 1MV21BT017

Under the guidance of

DR. JAGADEESH KUMAR D,

Associate Professor, Department of Biotechnology.

Department of Biotechnology



DEPARTMENT OF BIOTECHNOLOGY

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

BANGALURU-562157

KARNATAKA

**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY,
BENGALURU
DEPARTMENT OF BIOTECHNOLOGY**



CERTIFICATE

This is to certify that the Project work entitled “**In silico study of the crucial genes implicated in Hypertension**” is a bona fide work carried out by **Satyanarayana Satvik Sriadibhatla (1MV21BT015) Sneha S (1MV21BT017)**, bona fide students of **SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY** in partial fulfillment for the award of **Bachelor of Engineering in Department of Biotechnology** during the years 2021-2025. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The Major project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelors of Engineering Degree.



Signature of Guide

Dr. Jagadeesh Kumar D

Associate Professor

Department of
Biotechnology

Sir MVIT



Signature of HOD

Dr. H G Nagendra

Head of Department

Department of
Biotechnology

Sir MVIT



PRINCIPAL

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
Krishnadevarayanagar, Hunasamaranahalli
Internal Report Principal Bangalore-562 157

Dr. Rakesh S. G

Principal

Sir MVIT

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY
BELAGAVI, KARNATAKA**



**MINI-PROJECT REPORT ON
“SYNTHESIS AND CHARACTERIZATION OF *Zephyranthes citrina*
EXTRACT - BASED NICKEL OXIDE NANOPARTICLES BY WET
CHEMICAL METHODS”**

Submitted in partial fulfillment of the requirement for the award of the degree of
Bachelor of Engineering in Biotechnology

Submitted by

KEERTHI S V (1MV20BT005)

TRISHA N (1MV20BT021)

DEEPTI S (1MV20BT027)

Under the guidance of

Dr. Rashmi K V

Associate Professor

Department of Biotechnology

Co guide

Dr. G K Prashanth

Associate Professor & HoD

Department of Chemistry



**DEPARTMENT OF BIOTECHNOLOGY
SIR M. VISVESVARAYA INSTITUTE OF TRCHNOLOGY
BANGLORE, KARNATAKA**

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, BENGALURU

DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the project work entitled “SYNTHESIS AND CHARACTERIZATION OF *Zephyranthes citina* EXTRACT BASED NICKEL OXIDE NANOPARTICLES BY WET CHEMICAL METHODS” is a bonafide work carried out by Ms. KEERTHI S. V. (1MV21BT005), Ms. TISHA N. (1MV21BT027) and Ms DEEPTI S. (1MV21BT027) in partial fulfilment for the award of Degree of Bachelor of Engineering in Biotechnology under Visvesvaraya Technological University, Belgavi during the year 2021-2025. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The mini project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelors of Engineering Degree.

Guide

Dr. Rashmi K. V.
Associate Professor
Dept. of Biotechnology

Co-Guide

Dr. G. K. Prashanth
Associate Professor and Head
Dept. of Chemistry

HoD

Dr. H. G. Nagendra
Professor and Head
Dept. of Biotechnology

Prof. Rakesh S.G.
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
Krishnadevarayanagar, Hunsarasanahalli
International Airport Road, Bangalore-562 157

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY
JNANA SANGAMA BELGAUM-590018**



MINI PROJECT REPORT ON

“PHYTOREMEDIATION STUDIES TO TREAT LAKE WATER”

Submitted in partial fulfilment of the requirements for the award of the degree of

BACHELORE OF ENGINEERING

IN

BIOTECHNOLOGY ENGINEERING

SUBMITTED BY

SOUMYA SATISH GADAD

(1MV21BT018)

CV DARSHAN

(1MV21BT025)

HARNOOR KAUR

(1MV21BT028)

M SAMUDHA

(1MV21BT031)

Under the Guidance of

Dr. SUDEVI BASU

Assistant Professor

DEPARTMENT OF BIOTECHNOLOGY



SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY

DEPARTMENT OF BIOTECHNOLOGY ENGINEERING

Bengaluru-562157

JULY 2024


SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Affiliated to VTU-Belgavi, Recognized by AICTE and Accredited by NAAC)
Krishnadevarayanagar, Off International Airport Road, Hunasamaranahalli, Bangalore-
562152




CERTIFICATE


This is to certify that the project work entitled “**PHYTOREMEDIATION STUDIES TO TREAT LAKE WATER**” is a bonafide work carried out by **SOUMYA SATISH GADAD (1MV21BT018), CV DARSHAN (1MV21BT025), HARNOOR KAUR (1MV21BT028), M SAMUDHA (1MV21BT031)** in partial fulfilment for the award of **Bachelor of Engineering in Biotechnology Engineering of Visvesvaraya Technological University, Belgavi during the year 2023-2024**. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report. The synopsis for the report has been approved as it satisfies the academic requirements with respect to project work prescribed for the Bachelor of Engineering degree.


Dr. Sudevi Basu
Guide

Department of Biotechnology
Sir MVIT


Dr. H. G. Nagendra
Head of the Department

Department of Biotechnology
Sir MVIT


PRINCIPAL
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
Krishnadevarayanagar, Hunasamaranahalli
International Airport Road, Bangalore-562 152
Prof. Rakesh S. G.

Principal
Sir MVIT

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY
BELGAVI, KARNATAKA**



MINI PROJECT REPORT (21BTMP67)

**“EXTRACTION AND QUANTIFICATION OF ESSENTIAL OIL FROM
MEXICAN MINT”**

**SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE
AWARD OF DEGREE OF BACHELOR OF ENGINEERING IN BIOTECHNOLOGY**

FOR THE ACADEMIA YEAR 2023-2024

SUBMITTED BY

PREETHI.G (1MV21BT035)

S.VAISHNAVI (1MV21BT012)

U.POOJA (1MV21BT022)

SUSHMITHA.M.S (1MV21BT039)

UNDER THE GUIDANCE OF

Mr. MANJUNATH R

Associate Professor Department Of Biotechnology, Sir MVIT

**SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY HUNSAMARANAHALI,
BENGALURU- 562157**

**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY,
BENGALURU-562157**

DEPARTMENT OF BIOTECHNOLOGY

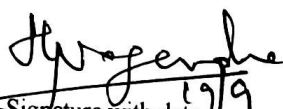


CERTIFICATE

This is to certify that the project work entitled “EXTRACTION AND QUANTIFICATION OF ESSENTIAL OIL FROM MEXICAN MINT” is a bonafide work carried out by **Ms. Preethi G (IMV21BT035), Ms. U Pooja (IMV21BT022), Ms. S Vaishnavi (IMV21BT012) and Ms. Sushmitha M.S (IMV21BT039)** in partial fulfillment for the award of Degree of Bachelor of Engineering in Biotechnoloy under Visvesvaraya Technological University, Belgaum during the year 2024-25. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The mini project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelors of Engineering Degree.

 17/09/24
Signature with date

Mr. Manjunath R
Internal Guide
Dept. of Biotechnology

 17/9
Signature with date

Dr. H.G Nagendra
Profession & Head
Dept of Biotechnology

Dr. H.G. Nagendra
Profession & Head
Department of Biotechnology
Sir M. Visvesvaraya Institute of Technology
Bengaluru-562157


PRINCIPAL

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
Krishnadevarayanagar, Hunsarasanahalli
International Airport Road, Bangalore-562 157
Signature with date

Dr. Rakesh S G
Principal of
Sir MVIT

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY
JNANA SANGAMA BELGAVI- 590018**



MINI PROJECT REPORT (21BTMP67)

“Estimation of bioethanol using agricultural waste by nano enzymatic hydrolysis”

Submitted in partial fulfilment of the requirements for the award of degree of

BACHELOR OF ENGINEERING IN BIOTECHNOLOGY

For the Academic year 2021-2025

Submitted by

| | | | |
|------------|-------------------|-------------|--------------------|
| Lavanya V | Poornima R Ankalg | Prerana D B | Sushma Ranjini M S |
| 1MV21BT006 | 1MV21BT009 | 1MV21BT011 | 1MV21BT019 |

Under the guidance of

DR R HALIMA

Assistant professor, Department of Biotechnology, Sir MVIT

DEPARTMENT OF BIOTECHNOLOGY



**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
HUNASAMARANAHALI, BENGALURU-56215**

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
HUNSAMARANAHALLI, BENGALURU – 562157 DEPARTMENT
OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the project work entitled “**Estimation of bioethanol using agricultural waste by nano enzymatic hydrolysis**” is a bonafide work carried out by **Ms. Lavanya V (1MV21BT006), Ms. Poornima R Ankalgi (1MV21BT009), Ms. Prerana D B (1MV21BT011) and Ms. Sushma Ranjini M S (1MV21BT019)** in partial fulfilment for the award of Degree of Bachelor of Engineering in Biotechnology under Visvesvaraya Technological University, Belgaum during the year 2021-2025. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelors of Engineering Degree.


5/8/24

Signature of Guide

Dr. R Halima

Assistant Professor

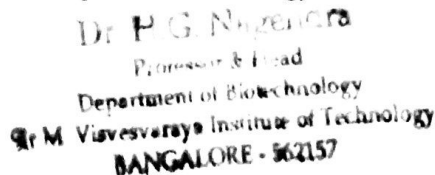
Dept of Biotechnology



Signature of HOD

Dr. H.G. Nagendra

Prof & head

Dept of Biotechnology


Dr. P.G. Nagendra
Professor & Head
Department of Biotechnology
Sir M. Visvesvaraya Institute of Technology
BANGALORE - 562157



PRINCIPAL

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
Krishnadevarayanagar, Hunsar
Internal Signature of Principal

Prof. Rakesh S G

Principal

Sir MVIT



SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY

Hunasamaranahalli, Yelahanka, Bangalore- 562157



MINI PROJECT REPORT
on

“Green Synthesis and Characterization of Silver And Copper Oxide Nanoparticles From *Citrus Grandis* Leaf And It's Potential Antimicrobial Activities For Developing Cellulose Based Water Filters.”

Submitted in fulfilment of the requirements for the award of degree

BACHELOR OF ENGINEERING

IN

BIOTECHNOLOGY

Submitted by

ANANYA R: 1MV21BT001

BHAVANA A: 1MV21BT002

KAREN FRANCINA MORAIS: 1MV21BT004

SANJITHA S: 1MV21BT014

Under the guidance of

DR HARIHARAN P

ASSISTANT PROFESSOR

DEPARTMENT OF BIOTECHNOLOGY

SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bangalore

SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY

Hunasamaranahalli, Yelahanka, Bangalore- 562157



DEPARTMENT OF BIOTECHNOLOGY ENGINEERING

CERTIFICATE

This is to certify that the project work entitles “Green Synthesis and Characterization of Silver and Copper Oxide Nanoparticles from *Citrus Grandis* Leaf and its’s Potential Antimicrobial Activities for Developing Cellulose Based Water Filters” is a bonafide work carried out by Ms. Karen Francina Morais [1MV21BT004], Ms. Sanjitha S [1MV21BT014], Ms. Bhavana A [1MV21BT002], and Ms. Ananya R [1MV21BT001] in partial fulfilment for the award of degree of engineering in Biotechnology of the Visvesvaraya Technological University, Belgaum during the year 2021- 2025. It is certified that all the corrections/ suggestions indicated for the internal assessment have been incorporated in the report deposited in the departmental library/ The mini project report has been approved as it satisfies the academic requirements in respect of internship prescribed for the Bachelor of Engineering degree.

Dr. Hariharan P
Project Guide
Assistant Professor
Department
of Biotechnology
SIR MVIT
Bangalore

Dr. H.G. Nagendra
Professor and HOD
Department of
Biotechnology
SIR MVIT
Bangalore

PRINCIPAL
Prof. Rakesh S
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
Krishnadevaraya, Hunasamaranahalli
International, Bangalore-562157
SIR MVIT
Bangalore

Dr. H.G. Nagendra

Professor & Head
Department of Biotechnology
Sir M. Visvesvaraya Institute of Technology
BANGALORE - 562157

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELAGAVI, KARNATAKA



MINI PROJECT REPORT

ON

**COLOUR REMOVAL FROM DISTILLARY SPENT WASH USING
ADSORBENTS**

Submitted in partial fulfilment of the requirement for the award of

Bachelor of Engineering in Biotechnology

Submitted By:

THRUPTHI.M(1MV21BT020)

JYOTHI.V(1MV21BT029)

MOHAMMED FARHAN ZAID(1MV21BT033)

SONIKA S.V(1MV21BT038)

Under the guidance of:

ISHWAR CHANDRA

Assistant Professor

DEPARTMENT OF BIOTECHNOLOGY

SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY BANGALORE


DEPARTMENT OF BIOTECHNOLOGY




2023- 2024

CERTIFICATE

This is to certify that the project undertaken by Thrupthi M, Jyothi V ,Mohammed Farhan ,Sonika SV, Sir M. Visvesvaraya Institute of Technology of VI Semester, bearing the USN No. 1MV21BT020,1MV21BT029,1MV21BT033,1MV21BT038 of the Department of Biotechnology is a bonafide work carried out in partial fulfillment for the award of Bachelor's degree in Biotechnology Engineering prescribed by the Visvesvaraya Technological University, Belgaum during the year 2023-2024. It is certified that all the corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project prescribed for Bachelor of Engineering degree.


Dr Ishwar Chandra
Assistant professor
Biotechnology, Sir MVIT


Dr. H.G Nagendra Prof.& HOD,
Biotechnology, Sir MVIT


PRINCIPAL
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
Krishnadevarayanagar, Hunasamaranahalli
International Airport Road, Bangalore-562 157

Signature with date
Dr. Rakuh Sg

Principal of Sir MVIT

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY
BELAGAVI-590014**



**INTERNSHIP REPORT ON
PRODUCTION OF BIOFUELS FROM PLANT SOURCES**

Submitted in partial fulfillment of the requirements for the award of
Bachelor of Engineering in Biotechnology



**DEPARTMENT OF BIOTECHNOLOGY
SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY
Bengaluru-562157**

Submitted by:

Bhavana A (1MV21BT002)

Under the guidance of:

Sri Sanjeev Kythappanavar, Assistant Professor

Sri Venkateshappa K C, Project Manager

College of Sericulture, Chintamani

And

Dr. Ishwar Chandra

Assistant Professor, SIR MVIT

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
BENGALURU
DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the internship undertaken by **Dhavyan A** in College of Sericulture, Chintamani of V Semester, bearing the ID No. **IMV/101001** of the Department of Biotechnology is a bonafide work carried out in a partial fulfillment for the award of Bachelor's degree in Biotechnology Engineering prescribed by the **Vivekvaraya Technological University, Belgaavi** during the 2021-2023. It is certified that all the corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The internship report has been approved as it satisfies the academic requirements in respect of internship prescribed for Bachelor of Engineering degree.

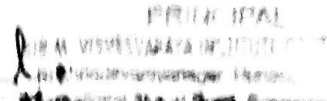

 Signature with date

Dr. Ishwar Chandra
 Assistant Professor
 Internal Guide
 SIR MVIT


 Signature with date

Dr. H G Nagendra
 Professor and HOD
 Dept. of Biotechnology
 SIR MVIT

Dr. H.G. Nagendra
 Professor & Head
 Department of Biotechnology
 Sir M. Visvesvaraya Institute of Technology
 BANGALURU - 560 075


 Signature with date

Prof. Rakesh S G
 Principal
 SIR MVIT

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY
JANA SANGAMA BELGAVI - 590018**



SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY – BENGALURU
Affiliated to VTU , Belagavi



**Internship Report – MOTHER DAIRY, THE UNIT OF KMF
YELAHANKA**

Topic: “An Organisational study at KMF Mother Dairy”

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

BACHELOR OF ENGINEERING IN BIOTECHNOLOGY
For the Academic year 2021-2025

Period of internship: 25th October to 23rd November 2023

Submitted

| | |
|-------------------|-------------------|
| INCHANA A | THRUPTHI M |
| 1MV21BT003 | 1MV21BT020 |

Under the guidance of:

Dr H G NAGENDRA

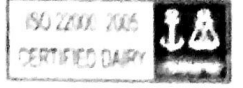
Dr ISHWAR CHANDRA

HOD & Assistant professor, Dept of BIOTECHNOLOGY, Sir MVIT

DEPARTMENT OF BIOTECHNOLOGY

KMF ಕರ್ನಾಟಕ ಸಹಕಾರಿ ಹಾಲು ಉತ್ಪಾದಕರ ಮಹಾಮಂಡಲ ನಿಯಮಿತ

ಘಟಕ : ಮದರ್ ಡೇರಿ, ಯಲಹಂಕ, ಬೆಂಗಳೂರು



KARNATAKA CO-OPERATIVE MILK PRODUCER'S FEDERATION LTD.,
UNIT : MOTHER DAIRY, YELAHANKA, BANGALORE

No.MD/ADMN/56A/2023-24

Date:24-11-2023

CERTIFICATE

This is to certify that **Ms Thrupthi M, Reg no:1MV21BT020 B.E(Biotechnology)** a student of Sir M Visvesvaraya Institute of Technology, Bangalore has successfully completed Internship Project work/Training program at Mother Dairy Yelahanka, Bengaluru a unit of KMF from dtd:30-10-2023 to 23-11-2023.

MANAGER(ADMIN)

Mother Dairy

ಯಲಹಂಕ, ಜಿ.ಕೆ.ವಿ.ಕೆ. ಅಂಚೆ, ಬೆಂಗಳೂರು - 560 065.

Yelahanka, G.K.V.K. Post, Bangalore-560 065. Phone : 080-22179000, 28463833, 28460162
080-28462652 E-mail : pa2director@motherdairykmf.in Visit us at kmfnandini.coop

SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY

BENGALURU

DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

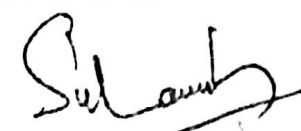
This is to certify that the internship undertaken by **Keerthi S V** in **College of Sericulture, Chintamani** of V Semester, bearing the USN NO. **IMV21BT005** of the Department of Biotechnology is a bonafide work carried out in a partial fulfillment for the award of Bachelor's degree in Biotechnology Engineering prescribed by the **Visvesvaraya Technological University, Belagavi** during the 2021-2025. It is certified that all the corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The internship report has been approved as it satisfies the academic requirements in respect of internship prescribed for Bachelor of Engineering degree.


Signature with date

Ishwar Chandra
Assistant Professor, SIR MVIT
Internal Guide


Signature with date

Dr. H G Nagendra
Professor and HOD
Dept. of Biotechnology
SIR MVIT


PRINCIPAL
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
Krishnadevarayanagar, Hunsur, Chamaraiahalli
International Airport Road, Bangalore-562 157
Signature with date

Prof. Rakesh S G
Principal
SIR MVIT

Dr H.G. Nagendra
Professor & Head

VISVESVARAYA TECHNOLOGICAL UNIVERSITY
BELAGAVI-590014



INTERNSHIP REPORT ON
PRODUCTION OF BIOFUELS FROM PLANT SOURCES

Submitted in partial fulfillment of the requirements for the award of
Bachelor of Engineering in Biotechnology



DEPARTMENT OF BIOTECHNOLOGY
SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY
Bengaluru-562157

Submitted by:

Keerthi S V (1MV21BT005)

Under the guidance of:

Sri Sanjeev Kythappanavar and Sri Venkateshappa K C

Assistant Professor and Project Manager

College of Sericulture, Chintamani

and

Dr. Ishwar Chandra

Assistant Professor, SIR MVIT

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELGAUM-590014, KARNATAKA



INTERNSHIP REPORT ENTITLED

“Quality control in pharmaceutical industry”

BACHELOR OF ENGINEERING IN BIOTECHNOLOGY

Lavanya.V

(1MV21BT006)

SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY

Hunasamaranahalli, Yelahanka, Bangalore-562157



Under the Guidance of:

Ravi sankar

Quality control manager

Daeiou pharmaceutical Pvt.Ltd

SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY



DEPARTMENT OF BIOTECHNOLOGY ENGINEERING

CERTIFICATE

This is to certify that the internship undertaken by **Ms. Lavanya.V (1MV21BT006)** in **Daciou pharmaceutical private limited** is a bonafede work carried out in partial fulfillment for the award of certificate in Study on "Quality control in pharmaceutical industry during the academic year of 2022-23 from 25 - 10 - 23 to 24 - 11 - 23. It is certified that all the corrections/suggestions indicated for the internal assessment have been incorporated in department library. This report has been approved as it satisfies the academic requirement Internship work prescribed for the BE degree program

PRINCIPAL
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
Krishnadevarayanagar, Hunasamaranahalli
International Airport Road, Bangalore-562 157
Prof. RAKESH S

Principal

Sir MVIT

Dr. H G NAGENDRA

Professor & HOD

Dept of BT



**FABRICATION OF A LAB-ON-CHIP DEVICE FOR DETECTION OF
THYROID DISORDER**

Submitted in partial fulfilment of the requirements for the award of

Bachelor of Engineering in Biotechnology in Biotechnology



DEPARTMENT OF BIOTECHNOLOGY

SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY

Bengaluru-562157

Submitted by: N. RITHANYA SINGH
USN: 1MV21BT007

Under the guidance of:

SANTHOSH KUMAR
Founder, Spinacle Technologies

And

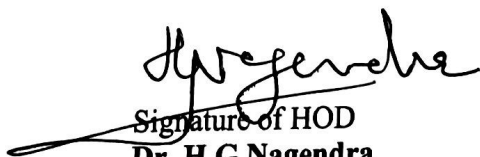
DR. SUDEVI BASU
Assistant Professor, Department of Biotechnology, Sir MVIT
Bengaluru- 562159

**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY,
BENGALURU
DEPARTMENT OF BIOTECHNOLOGY**

CERTIFICATE




This is to certify that the work entitled “**Lab On Chip Device for Thyroid testing**” is carried out by **N.Rithanya Singh**(1MV21BT007), bona fide students of **SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY** in partial fulfillment for the award of **Bachelor of Engineering in Department of Biotechnology** during the years 2021-2025. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The Seminar project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelors of Engineering Degree.



Signature of HOD
Dr. H G Nagendra
Head of Department
Department of Biotechnology
Sir MVIT

Dr H.G. Nagendra
Professor & Head
Department of Biotechnology
Sir M. Visvesvaraya Institute of Technology
BANGALORE - 562157



PRINCIPAL
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
Krishnadevarayanagar, Hunsur, Manahalli
International Airport Road, Bangalore-562 157
Signature of Principal

Dr. Rakesh S. G
Principal
Sir MVIT



**FABRICATION OF A LAB-ON-CHIP DEVICE FOR DETECTION OF
THYROID DISORDER**

Submitted in partial fulfilment of the requirements for the award of

Bachelor of Engineering in Biotechnology in Biotechnology



DEPARTMENT OF BIOTECHNOLOGY

SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY

Bengaluru-562157

Submitted by:
Nirupama Raghunath
USN : 1MV21BT008

Under the guidance of:

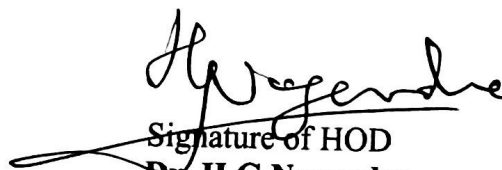
SANTHOSH KUMAR
Founder, Spinacle Technologies


And
DR. SUDEVI BASU
Assistant Professor, Department of Biotechnology, Sir MVIT
Bengaluru- 562159

**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY,
BENGALURU
DEPARTMENT OF BIOTECHNOLOGY
CERTIFICATE**



This is to certify that the work entitled “**Lab On Chip Device for Thyroid testing**” is carried out by **Nirupama Raghunath (1MV21BT008)**, bona fide students of **SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY** in partial fulfillment for the award of **Bachelor of Engineering in Department of Biotechnology** during the years 2021-2025. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The Seminar project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelors of Engineering Degree.


Signature of HOD
Dr. H G Nagendra
Head of Department
Department of Biotechnology
Sir MVIT


PRINCIPAL
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
Signature of Principal
Dr. Rakesh S. G
Krishna Deva Varaha Puram, Hosur, Maranahalli
International Airport Road, Bangalore-562 157
Principal
Sir MVIT



INTERNSHIP REPORT ENTITLED
A STUDY ON MANUFACTURING PRODUCTION PROCESS &
QUALITY ANALYSIS OF SOAPS AND DETERGENT

SUBMITTED IN FULLFILLMENT OF THE REQUIEMENTS OF
KARNATAKA SOAPS AND DETERGENTS LIMITED

BACHELOR OF ENGINEERING IN BIOTECHNOLOGY

PRADEEPA G N

(1MV21BT010)

Under the Guidance of :

Smt. VIDYA PATANKAR AM (QAD)

Sri. SHASHIKANTH.M AM (DP)

Smt.SANDHYA.K.G AM(P&M)

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

Hunasamaranahalli, Yelahanka, Bangalore-562157



SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY



KARNATAKA SOAPS & DETERGENTS LIMITED.

BANGALORE-55

(A Government of Karnataka Undertaking)

No: 27, Industrial Suburb, P.B No: 5531

Bengaluru-Pune Highway, Rajajinagar, Bengaluru-560055, KARNATAKA

CERTIFICATE

NO: KSDL/HRD/TRAINING/23-24/14

Date: 23.11.2023

This is to certify that **Mr. Pradeepa.G.N**, Reg No:1MV21BT010, Student of B.E(Biotechnology), Sir.M.Visvesvaraya Institute of Technology, Krishnadevarayanagar, Hunasamaranahalli, Bengaluru-562157, has completed his Internship work on "A Study on Manufacturing, Production Process and Quality Analysis" at Karnataka Soaps & Detergents Limited Bengaluru-560055 period from:31.10.2023 to 23.11.2023

During Internship work on his academic ability and character was good.


MANAGER

Human Resource Development

K.C. SUNDARAMUTHY
Manager (HRD)

KARNATAKA SOAPS AND DETERGENTS LTD,
BANGALORE-560055

Place: Bengaluru



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY
BELGAUM-590014, KARNATAKA**



**INTERNSHIP REPORT ENTITLED
“Comprehensive Nutritional Profiling and Millet Waste Innovation: Featuring Kisok
Operations and GKVK (Krishi Mela) Experience”**

BACHELOR OF ENGINEERING IN BIOTECHNOLOGY

Prerana D B

(1MV21BT011)

SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY

Hunasamaranahalli, Yelahanka, Bangalore-562157



Under the Guidance of:

Mr. Srinivas B.V

Director and CEO

Aspartika Biotech Pvt.Ltd

SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY



DEPARTMENT OF BIOTECHNOLOGY ENGINEERING

CERTIFICATE

This is to certify that the internship undertaken by **Ms. Prerana D B (1MV21BT011)** in **SOMEY'S KITCHEN** is a Bonafede work carried out in partial fulfillment for the award of certificate in Study on "TOPIC" during the academic year of 2022-23 from 3 - 11 - 23 to 23 - 11 - 23. It is certified that all the corrections/suggestions indicated for the internal assessment have been incorporated in department library. This report has been approved as it satisfies the academic requirement Internship work prescribed for the BE degree program

Dr. H G NAGENDRA

Professor & HOD

Dept of BT

Dr H.G. Nagendra

Professor & Head

Department of Biotechnology

Sir M. Visvesvaraya Institute of Technology

BANGALORE - 562157

PRINCIPAL

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
Krishnadevarayanagar, Hunasamaranahalli
International Airport Road, Bangalore-562 157

Prof. RAKESH S G

Principal

Sir MVIT

**INTERNSHIP REPORT ENTITLED
TOXICOLOGY LABORATORY ASSOCIATE ROLE
SUBMITTED BY**



**DEPARTMENT OF BIOTECHNOLOGY
SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY
Krishnadevaraya nagar, Hunasamaranahalli, Yelahanka, Bangalore-562157**

**S VAISHNAVI
USN: 1MV21BT012**

BIOLIM

In skill development service, since 2009



BioLim[®]

Centre for Science & Technology

2009

E-Certificate

This is to certify that
Ms. S Vaishnavi
(Reg. No. 1MV21BT012)
(Aadhaar Card no: XXXX XXXX 1166)
has successfully completed 14 days
**"Internship on Toxicology Laboratory
associate role"** conducted by BioLim,
Chennai, TN, India in online mode from
18-12-2023 to 31-12-2023.

A member
organisation of
**Biotech Consortium
India Ltd (BCIL)**



The originality of this
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verified in the weblink
www.biolim.org/do/verify

| | |
|----------------------------|-------------------|
| Online tasks | : 72.2 out of 100 |
| Implementation efforts | : 0 out of 20 |
| Attendance & participation | : 7.8 out of 15 |
| On-time completion | : 15 out of 15 |
| Online viva | : 44 out of 50 |
| Total marks (in %) | : 69.5 |
| Grade obtained | : C |
| Status | : Completed |

Grade reference:
S Outstanding;
A Very good;
B Good;
C Satisfactory;
D Sufficient;
E Not sufficient;
U Unfair.




DIRECTOR

8/4, Munusamy saik, Chennai, Tamil nadu, India

Tel: +91 9952 11 21 31, Mail: info@biolim.org, Web: <https://www.biolim.org>

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELGAUM-590014



**INTERNSHIP REPORT
ON**

**Banana Plant Tissue Culture: Techniques, Applications,
and Outcomes**

Submitted in fulfilment of the requirements for the award of degree

Bachelor Of Engineering in Biotechnology



DEPARTMENT OF BIOTECHNOLOGY

SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY

Affiliated to VTU, Belagavi| Approved by AICTE, New Delhi/ Govt. of Karnataka| Accredited by NAAC NBA

Submitted by

SANJITHA S [1MV21BT014]

SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY
BENGALURU
DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the internship undertaken by **SANJITHA S** in **ANANTHA BIO TECHNOLOGIES AND ALLIED INDUSTRIES PRIVATE LIMITED** of IV Semester, bearing the **USN No. 1MV21BT014** of the Department of Biotechnology is a Bonafide work carried out in partial fulfilment for the award of Bachelor's degree in Biotechnology Engineering prescribed by the **Visvesvaraya Technological University, Belgaum** during the year 2021-2025. It is certified that all the corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The internship report has been approved as it satisfies the academic requirements in respect of internship prescribed for Bachelor of Engineering degree.


Signature

r. H G Nagendra

Professor and HOD

pt. of Biotechnology, Sir MVIT



PRINCIPAL

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
Krishnadevarayanagar, Hunasamaranahalli
International Airport Road, Bangalore-562 157

Prof. RAKESH S. G.

PRINCIPAL

Sir MVIT.

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY
BELGAUM-590014, KARNATAKA**



INTERNSHIP REPORT ENTITLED

**"Comprehensive Nutritional Profiling and Millet Waste Innovation:
Featuring Kiosk Operations and GKV (KrishiMela) Experience"**

Submitted in partial fulfilment of the requirements for the award of

BACHELOR OF ENGINEERING IN BIOTECHNOLOGY

SATYANARAYANA SATVIK SRIADIBHATLA

(IMV21BT015)

SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY

Hunasamaranahalli, Yelahanka, Bangalore-562157



Under the Guidance of :

Mr. SRINIVAS B.V

Managing director

Somey's Kitchen

And

Dr. SUDEVI BASU

Assistant Professor, Department of Biotechnology, Sir MVIT, Bengaluru- 562159


SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY



DEPARTMENT OF BIOTECHNOLOGY ENGINEERING

CERTIFICATE

This is to certify that the internship undertaken by **Mr. Satyanarayana satvik Sriadibhatla** (IMV21BT015) in **SOMEY'S KITCHEN** is a Bonafede work carried out in partial fulfillment for the award of certificate in Study on "Comprehensive Nutritional Profiling and Millet Waste Innovation: Featuring Kiosk Operations and GKV (KrishiMela) Experience" during the academic year of 2022-23 from 3 - 11 - 23 to 23 - 11 - 23. It is certified that all the corrections/suggestions indicated for the internal assessment have been incorporated in department library. This report has been approved as it satisfies the academic requirement. Internship work prescribed for the BE degree program



Dr. H G NAGENDRA

Professor & HOD

Dept of BT



PRINCIPAL

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
Krishnadevarayanagar, Hunsur, Mysore
International Airport Road, Bangalore-562-157

Prof. RAKESH S G

Principal

Sir M



SOMEY'S KITCHEN PRIVATE LIMITED

CIN: U74999KA2017PTC100405

Ref No.: SKPL/33/24-25

Date: 6th August, 2024

CERTIFICATE

This is to certify that, **Mr. Satyanarayana satvik Sriadibhatla** pursuing biotechnology from Sir M. Visvesvaraya Institute of Technology, Bangalore has undergone training under my guidance and successfully completed his one month internship from 27th October 2023 to 24th November 2023. During the above mentioned period he carried out following project work **"Comprehensive Nutritional Profiling and Millet Waste Innovation: Featuring Kiosk Operations and GKVK (KrishiMela) Experience"**.

This report is a result of his efforts and endeavors. The report is worthy of acceptance of internship report of his semester end internship. During his tenure with me I found him sincere and hardworking. I wish him a great success for the future.

For SOMEYS KITCHEN PVT LTD.

Director

Pravin B V,

Director, Someys Kitchen Pvt. Ltd.,



INTERNSHIP REPORT ENTITLED
A STUDY ON MANUFACTURING PRODUCTION PROCESS &
QUALITY ANALYSIS OF SOAPS AND DETERGENT

SUBMITTED IN FULLFILLMENT OF THE REQUIEMENTS OF
KARNATAKA SOAPS AND DETERGENTS LIMITED

BACHELOR OF ENGINEERING IN BIOTECHNOLOGY

SIDDHARTH V

(1MV21BT016)

Under the Guidance of :

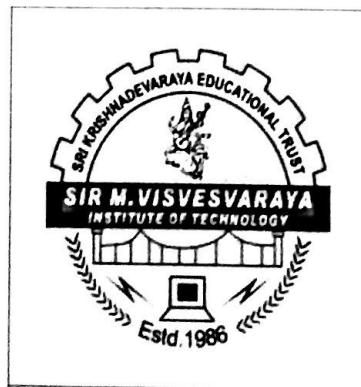
Smt. VIDYA PATANKAR AM (QAD)

Sri. SHASHIKANTH.M AM (DP)

Smt.SANDHYA.K.G AM(P&M)

SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY

Hunasamaranahalli, Yelahanka, Bangalore-562157



SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY



KARNATAKA SOAPS AND DETERGENTS LIMITED

CERTIFICATE

This is to certify that Ms SIDDHARTH V, student pursuing biotechnology from Sir M. Visvesvaraya Institute of Technology, Bangalore has undergone training under my guidance from 3rd November 2023 to 23rd November 2023. During the above mentioned period he carried out following project work **"A STUDY ON MANUFACTURING ,PRODUCTION PROCESS AND QUALITY ANALYSIS OF SOAPS AND DETERGENTS "** .

This report is a result of his efforts and endeavours . The report is worthy of acceptance of internsip report of his semester end internsip. During his tenure with me I found him sincere and hardworking .i wish him a great success for the future

SMT. VIDYA PATANKAR

AM (QAD)

AM (DP)

SMT.SANDHYA.K.G

AM (P&M)

PLACE : Bangalore

SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY



DEPARTMENT OF BIOTECHNOLOGY ENGINEERING

CERTIFICATE

This is to certify that the internship undertaken by SIDDHARTH V(1MV21BT016) in KARNATAKA SOAPS AND DETERGENT LIMITED is a bonafide work carried out in partial fulfillment for the award of certificate in Study on Manufacturing , Production process & Quality Analysis during the academic year of 2022-23 from 3 - 11 - 23 to 23 - 11 - 23. It is certified that all the corrections/suggestions indicated for the internal assessment have been incorporated in department library. This report has been approved as it satisfies the academic requirement Internship work prescribed for the BE degree program

.....
Dr H G NAGENDRA

Professor & HOD

Dept. of BT

.....
Prof. RAKESH S G

Principal

Sir MVIT

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Bellary-590 018, Karnataka, India



INTERNSHIP REPORT ON

PRIMARY RESEARCH ON ESSENTIAL OILS

Submitted in fulfillment for the requirements for the 6th semester.

Bachelor of Engineering

in

BIOTECHNOLOGY AND ENGINEERING

For the Academic Year 2023-2024

Submitted by:

SOUMYA SATISH GADAD

IMV21BT018

Under the guidance of

SANJAY GADAD



**Opposite to: Vidya Kiran School 7th Cross Road, Jambusavari Dinne Main Rd,
Venkateshwara Layout, 8th Phase,
Bengaluru, Karnataka 560076**

CERTIFICATE

S&g

CERTIFICATE

Of Appreciation

This is to certify that
SOUMYA SATISH GADAD(1MV21BT018)

has successfully completed the Internship on
"PRIMARY RESEARCH ON ESSENTIAL OILS"

from 26/10/23 to 24/11/23

Offered by S&g CREATIONS

We acknowledge their commitment in expanding
their knowledge in the fascinating world of essential oils

For S&g CREATIONS



Partner

SANJAY GADAD.

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

BENGALURU - 562157

Department of Biotechnology and Engineering



CERTIFICATE

This is to certify that **SOUMYA SATISH GADAD (1MV21BT018)** is a bonafide student of Bachelor of Engineering in Biotechnology of **SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY Bengaluru**, during the year **2023-2024** has satisfactorily completed Industrial training from **S&G creations, Bengaluru** in partial fulfillment of the requirements prescribed by the VTU for the award of the Bachelor of Engineering in Biotechnology and submitted this report during the academic year **2023-2024**.

FOR SIGNATURE OF
Partner

Signature of Guide
ANJAY GADAD
& G CREATIONS

Signature of HOD
Dr. H.G NAGENDRA
HOD, Dept. of BT
SIR MVIT

Dr H.G. Nagendra
Professor & Head
Department of Biotechnology
Sir M. Visvesvaraya Institute of Technology
BANGALORE - 562157

Signature of Principal
Dr. RAKESH S G
Principal
SIR MVIT

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELGAVI- 590014



INTERNSHIP REPORT (21INT68) ON

"CLINICAL DIAGNOSTICS TEST"

Submitted in partial fulfilment of the requirements for the award of degree of

BACHELOR OF ENGINEERING IN BIOTECHNOLOGY



SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

HUNASAMARANAHALLI, BENGALURU-562157

Submitted by:

SUSHMA RANJINI M S

(1MV21BT019)

Under the guidance of

DR. VASEEM AHMED

Director of Asian diagnostics Bangalore

And

DR. SUDEVI BASU

Assistant Professor, Department of Biotechnology, Sir MVIT Bengaluru- 562159


SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY
BENGALURU
DEPARTMENT OF BIOTECHNOLOGY




CERTIFICATE

This is to certify that the internship undertaken by **SUSHMA RANJINI M S** in **ASIAN DIAGNOSTICS** of IV Semester, bearing the **USN No. 1MV21BT019** of the Department of Biotechnology is a bonafide work carried out in partial fulfilment for the award of Bachelor's degree in Biotechnology Engineering prescribed by the **Visvesvaraya Technological University, Belgaum** during the year 2021-2025. It is certified that all the corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The internship report has been approved as it satisfies the academic requirements in respect of internship prescribed for Bachelor of Engineering degree.

Signature with date
Dr. Sudevi Besu
Assistant Professor, SIR MVIT
Internal Guide


Signature with date
Dr. H G Nagendra
Professor and HOD
Dept. Of Biotechnology, Sir MVIT
Dr. H.G. Nagendra
Professor & Head
Department of Biotechnology
Sir M Visvesvaraya Institute of Technology
BANGALORE - 562157


PRINCIPAL
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
Krishnadevarayanagar, Hunsur, Hosur Road,
International Airport Road, Bangalore-562 157

Signature with date
Dr. Rakesh S G
Principal
Sir MVIT

Name of Examiners

Signature of Examiners

Clinical Diagnostics tests



A UNIT OF AHMED HEALTH CARE PVT LTD

28, Opp. Vanavilas Hospital K R Road (Near City Market) Bangalore - 560 002
Tel: 080-26708400, 99455 40000
e-mail: asiandiagnostics@yahoo.com

DATE: 23 11.2023

Ref.No:AD/09/23

Certificate of Internship

TO WHOM SO EVER IT MAY CONCERN

The undersigned would like to certify that Ms. M.S. Sushma Ranjini was working as "Trainee" from 25th Oct 2023 to 23rd Nov 2023 in Asian Diagnostics.

During this period she has worked in the department of Sample Collection, Clinical Pathology, Clinical Biochemistry, Microbiology, Hematology, Histopathology and Serology.

She is found to be hard working, loyal and honest throughout her tenure.


Dr. VASEEM AHMED
DIRECTOR



INTERNSHIP REPORT ON
PRODUCTION OF BIOFUELS FROM PLANT SOURCES

Submitted in partial fulfillment of the requirements for the award of
Bachelor of Engineering in Biotechnology



DEPARTMENT OF BIOTECHNOLOGY
SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY
Bengaluru-562157

Submitted by:

Trisha N (1MV21BT021)

Under the guidance of:

Sri Sanjeev Kythappanavar and Sri Venkateshappa K C

Assistant Professor and Project Manager

College of Sericulture, Chintamani

and

Dr. Ishwar Chandra

Assistant Professor, SIR MVIT

VISVESVARAYA TECHNOLOGICAL UNIVERSITY
BELAGAVI-590014



INTERNSHIP REPORT ON
PRODUCTION OF BIOFUELS FROM PLANT SOURCES

Submitted in partial fulfillment of the requirements for the award of
Bachelor of Engineering in Biotechnology



DEPARTMENT OF BIOTECHNOLOGY
SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY
Bengaluru-562157

Submitted by:

Trisha N (1MV21BT021)

Under the guidance of:

Sri Sanjeev Kythappanavar and Sri Venkateshappa K C

Assistant Professor and Project Manager

College of Sericulture, Chintamani

and

Dr. Ishwar Chandra

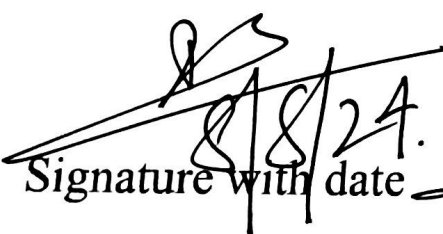
Assistant Professor, SIR MVIT

SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY
BENGALURU
DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

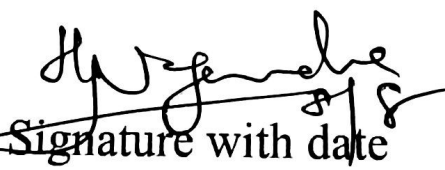
This is to certify that the internship undertaken by **Trisha N** in **College of Sericulture, Chintamani** of V Semester, bearing the **USN NO. 1MV21BT021** of the Department of Biotechnology is a bonafide work carried out in a partial fulfillment for the award of Bachelor's degree in Biotechnology Engineering prescribed by the **Visvesvaraya Technological University, Belagavi** during the 2021-2025. It is certified that all the corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The internship report has been approved as it satisfies the academic requirements in respect of internship prescribed for Bachelor of Engineering degree.


Signature with date

Dr. Ishwar Chandra

Assistant Professor, SIR MVIT

Internal Guide


Signature with date

Dr. H G Nagendra

Professor and HOD

Dept. of Biotechnology

SIR MVIT

Dr. H.G. Nagendra

Professor & Head

Department of Biotechnology

Sir M. Visvesvaraya Institute of Technology

BANGALORE - 562157



PRINCIPAL

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

Krishnadevarayanagar, Hunsur, Mysore

International Airport Road, Bangalore - 562157

Signature with date

Prof. Rakesh S G

Principal

SIR MVIT



CERTIFICATE

Date: 25.11.2023

This is to certify that MS. Trisha N, Third Year BE, Biotechnology, USN: MV21B1021 student of Sir M Visvesvaraya Institute of Technology, Bengaluru has completed internship work on "Production of Biofuel from Plant Sources" at District Bioenergy Research, Information and Demonstration Centre, College of Sericulture, Chintamani under the guidance of Mr. Sanjeev Kyathappanavar, Assistant Professor of Environmental Science and Mr. Kateshappa K C, Scientific Assistant DBRIDC from date: 26.10.2023 to 25.11.2023 during period her performance was found to be satisfactory.

This certificate is issued as a practical fulfillment of her Academic Programme/curriculum.

Co-coordinator

Co-ordinator

District Bio Energy Research
Information & Demonstration Center
College of Sericulture, Chintamani

INTERNSHIP REPORT ENTITLED
A STUDY ON PRODUCTION OF SOAP AND DETERGENT & ITS
QUALITATIVE ANALYSIS

SUBMITTED BY



DEPARTMENT OF BIOTECHNOLOGY

SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY

Krishnadevaraya nagar, Hunasamaranahalli, Yelahanka, Bangalore-562157

U. POOJA

USN: 1MV21BT022

Under the guidance of

Smt. VIDYA PATANKAR A M (QAD)

Sri. SHASHIKANTH A M (DP)

Smt. SANDHYA. K. G A M (P&M)

KARNATAKA SOAPS AND DETERGENT LIMITED

(A govt of Karnataka Undertaking)

#55 industrial suburbs Rajajinagar

Bangalore

State name: Karnataka, Code: 29



KARNATAKA SOAPS & DETERGENTS LIMITED.

BANGALORE-55

(A Government of Karnataka Undertaking)

No: 27, Industrial Suburb, PB No: 5531

Bengaluru-Pune Highway, Rajajinagar, Bengaluru-560055, KARNATAKA

CERTIFICATE

NO: KSDL/HRD/TRAINING/23-24/26

Date: 23.11.2023

This is to certify that **Ms. U.Pooja**, Reg No:1MV21BT022, Student of B.E(Biotechnology), Sir.M.Visvesvaraya Institute of Technology, Krishnadevarayanagar, Hunasamaranahalli, Bengaluru-562157, has completed her Internship work on "A Study on Manufacturing, Production Process and Quality Analysis" at Karnataka Soaps & Detergents Limited Bengaluru-560055 period from:03.11.2023 to 23.11.2023

During Internship work on her academic ability and character was good.


MANAGER

Human Resource Development

MANAGER (HRD)
KARNATAKA SOAPS AND DETERGENTS LTD.
BANGALORE-560055

Place: Bengaluru





INTERNSHIP REPORT ENTITLED

SAKSHI NGO

BACHELOR OF ENGINEERING IN BIOTECHNOLOGY

B RISHIK REDDY

(1MV21BT023)

Under the Guidance of:

Mr. Zuber khan

(Director of Sakshi Ngo)

SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY



DEPARTMENT OF BIOTECHNOLOGY ENGINEERING

CERTIFICATE

This is to certify that the internship undertaken by B RISHIK REDDY(1MV21BT023) in SAKSHI NGO is a Bonafide work carried out in partial fulfillment for the award of certificate in Study of Social sectors during the academic year of 2022-23 from 25 - 10 - 23 to 23 - 11 - 23. It is certified that all the corrections/suggestions indicated for the internal assessment have been incorporated in department library. This report has been approved as it satisfies the academic requirement Internship work prescribed for the BE degree program

Dr. H G NAGENDRA

Professor & HOD

Dept of BT

PRINCIPAL

**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
Krishnadevarayanagar, Hunsur, Mysore
International Airport Road, Bangalore-562 157**

Prof. RAKESH S G

Principal

Sir MVIT



SAKSHI

Registered Under the Societies Registration Act 1860, Foreign Contribution Registration Act & 80G of the Income Tax Act.

Date: 23/11/2023

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Mr. Rishik S/O Mr. B Sudhakar Reddy**, student from Sir M. Visvesvaraya Institute of Technology has Completed his Concurrent Field Work at Sakshi from 25th October to 23rd November. He had been assigned to work on Child Protection & Child Rights, Plantation, WASH and Education.

Zuber Khan

Director

Sakshi



D-332, Défense Colony, New Delhi-110024, Tel.: +91-11-24621743, 49032406, Mob.: +91-9811233595, 810115972 E-mail: info@sakshingo.org, sakshi.cec@gmail.com, Website: www.sakshingo.org

VISVESVARAYA TECHNOLOGICAL UNIVERSITY
BELAGAVI-590014



INTERNSHIP REPORT ON
Banana Plant tissue culture

Submitted in partial fulfilment of the requirements for the award of
Bachelor of Engineering in Biotechnology

Submitted by:

C V Darshan

-1MV21BT025



DEPARTMENT OF BIOTECHNOLOGY
SIR M VISVESVARAYA INSTITUTE OF
TECHNOLOGY

Bengaluru-562157

SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY

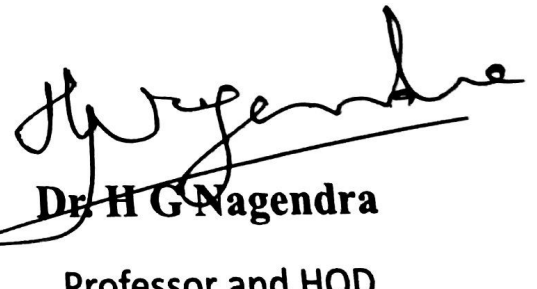
BENGALURU

DEPARTMENT OF BIOTECHNOLOGY

CERTIFICATE



This is to certify that the internship undertaken by C V DARSHAN in ANANTHA BIO TECHNOLOGIES AND ALLIED INDUSTRIES PRIVATE LIMITED of IV Semester, bearing the USN No. 1MV21BT025 of the Department of Biotechnology is a Bonafide work carried out in partial fulfilment for the award of Bachelor's degree in Biotechnology Engineering prescribed by the Visvesvaraya Technological University, Belgaum during the year 2021-2025. It is certified that all the corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The internship report has been approved as it satisfies the academic requirements in respect of internship prescribed for Bachelor of Engineering degree.



Dr. H G Nagendra

Professor and HOD

Dept. of Biotechnology

SIR MVIT

IN No. U01403AP2009PTC064487

TIN No. : 37103184607



ANANTHA

Biotechnologies & Allied Industries Private Limited
ISO 9001 - 2008 Certified Company

Certificate of Internship

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Darshan C V (Reg. No. 1MV21BT025), a student of sir M visvesvaraya Institute of technology has successfully completed his Internship training programme in our organization. During his training period, he worked on the field of TISSUE CULTURE TECHNOLOGY. His Internship duration is from 26th Oct 2023 to 24th NOV 2023. During his training he worked directly under K. RADHA KRISHNA REDDY (Managing Director).



For ANANTHA BIOTECHNOLOGIES
& ALLIED INDUSTRIES PVT. LTD.

(K. Radha Krishna Reddy)
Managing Director

95/11/25.



Factory : S.No. 78, Narayanapuram Panchayath, Nagreddypally Village, Somuladoddy Post, Ananthapuramu Rural, Ananthapuramu Dist, A.P.

Ph : 08554 238166, Cell 090 99888889, 090 9889889, 9390299910, 9390299911.

Email : abtdrip@gmail.com, abtpipes@gmail.com



INTERNSHIP REPORT ENTITLED
A STUDY ON MANUFACTURING PRODUCTION PROCESS &
QUALITY ANALYSIS OF SOAPS AND DETERGENT

SUBMITTED IN FULLFILLMENT OF THE REQUIEMENTS OF

KARNATAKA SOAPS AND DETERGENTS LIMITED

BACHELOR OF ENGINEERING IN BIOTECHNOLOGY

CHIRAG C

(1MV21BT026)

Under the Guidance of :

Smt. VIDYA PATANKAR AM (QAD)

Sri. SHASHIKANTH.M AM (DP)

Smt.SANDHYA.K.G AM(P&M)

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

Hunasamaranahalli, Yelahanka, Bangalore-562157

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

Hunasamaranahalli, Yelahanka, Bangalore-562157



CERTIFICATE

This is to certify that Mr Chirag C, student pursuing biotechnology from Sir M. Visvesvaraya Institute of Technology, Bangalore has undergone training under my guidance from 31st October 2023 to 23rd November 2023. During the above mentioned period he carried out following project work "**A STUDY ON MANUFACTURING ,PRODUCTION PROCESS AND QUALITY ANALYSIS OF SOAPS AND DETERGENTS** " .

This report is a result of his efforts and endeavours . The report is worthy of acceptance of internship report of his semester end internship. During his tenure with me I found him sincere and hardworking . I wish him a great success for the future

.....
SMT. VIDYA PATANKAR

.....
SRI.SHASHIKANTH.M

.....
SMT.SANDHYA.K.G

AM (QAD)

AM (DP)

AM (P&M)



KARNATAKA SOAPS & DETERGENTS LIMITED.
BANGALORE-55

(A Government of Karnataka Undertaking)

No: 27, Industrial Suburb, P.B No: 5531

Bengaluru-Pune Highway, Rajajinagar, Bengaluru-560055, KARNATAKA

CERTIFICATE

NO: KSDL/HRD/TRAINING/23-24/15

Date: 23.11.2023

This is to certify that **Mr.Chirag C, Reg No:1MV21BT026**, Student of **B.E(Biotechnology)**, **Sir.M.Visvesvaraya Institute of Technology**, **Krishnadevarayanagar, Hunasamaranahalli, Bengaluru-562157**, has completed his Internship work on **"A Study on Manufacturing, Production Process and Quality Analysis"** at **Karnataka Soaps & Detergents Limited Bengaluru-560055** period from:**31.10.2023 to 23.11.2023**

During Internship work on his academic ability and character was good.


MANAGER

Human Resource Development

K.C. SUNDARAMUTHY

Manager (HRD)

KARNATAKA SOAPS AND DETERGENTS LTD,
BANGALORE-560055

Bengaluru



VISVESVARAYA TECHNOLOGICAL UNIVERSITY BELAGAVI



INTERNSHIP REPORT (INT21NT68)

ON

“CELL CULTURE AND SMALL ORGANISM BASED MODELS FOR RESEARCH”

Submitted in partial fulfilment of the requirements for the award of

Bachelor of Engineering in Biotechnology

For the academic year 2021-2025

Submitted by:

DEEPTI S (1MV21BT027)

Internship carried out at

The University of Trans Disciplinary Health Science & Technology (TDU)

External Guide:

DR. ASHWINI GODBOLE

Assistant Professor

Centre for Ayurveda biology and Holistic nutrition

TDU, Yelahanka.

Internal Guide:

DR. RASHMI K V

Associate Professor

Department of Biotechnology

Sir MVIT, Bengaluru-56



DEPARTMENT OF BIOTECHNOLOGY

SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY

Bengaluru-562157

TU

TO WHOMSOEVER IT MAY CONCERN

This is to certify that, **Deepti.S** has successfully completed an internship under my supervision at the University for Transdisciplinary Health Sciences and Technology (TDU), from 6th November 2023 to 5th December 2023.

She was trained for the project titled, "Use of cell culture and small organism based models for research". For further information, please do not hesitate to contact me on ashwinigodbole@tdu.edu.in.

DR ASHWINI GODBOLE

Associate Professor, TDU

Date: 6/12/2023

**SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY
BENGALURU DEPARTMENT OF BIOTECHNOLOGY**

CERTIFICATE



This is to certify that the internship undertaken by **DEEPTI S** in The University of Transdisciplinary Health Sciences and Technology of VI Semester, bearing the USN No. **1MV21BT027** of the Department of Biotechnology is a bonafide work carried out in partial fulfilment for the award of Bachelor's degree in Biotechnology Engineering prescribed by the Visvesvaraya Technological University, Belgaum during the year 2021-2025. It is certified that all the corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The internship report has been approved as it satisfies the academic requirements in respect of internship prescribed for Bachelor of Engineering degree.


6/8/2024

Signature of Internal Guide
Dr..Rashmi K V
Associate Professor,

Department of Biotechnology,



Signature of HoD
Dr. H.G Nagendra
Head of Department,

Department of Biotechnology



PRINCIPAL

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
Krishnadevarayanagar, Hunsur
International Airport Road, Bangalore

Signature of Principal
Prof. Rakesh S.G
Principal,

Sir MVIT, Bengaluru

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY
JNANA SANGAMA BELGAVI-590018**



**INTERNSHIP REPORT (21INT68)
"BIOINFORMATICS-A WORKING
CONCEPT(BASICS,DEVELOPMENT AND FUTURE) AT BIONOME
COMPANY"**

Submitted in partial fulfilment of the requirements for the
award of **Bachelor of Engineering in Biotechnology**
For the Academic year 2023-2024



**DEPARTMENT OF BIOTECHNOLOGY
SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY
Bengaluru-562157**

Submitted by:

HARNOOR KAUR (1MV17BT028)

Under the guidance of

Ms SUSHA .D

**BioNome Bioinformatics Board in Bangalore,
Hennur Cross, Bengaluru India – 560043**



CERTIFICATE OF COMPLETION

This certificate is awarded to

Harnoor Kaur Pannu

In recognition of his/her hard work and dedication in completing the

Bioinformatics - A Working Concept (Basics, Development and Future)

Training Duration - **October 24, 2023 - November 24, 2023**

Sameer Sharma
(Chief Scientific officer)



Date: 03/11/2023



BioNome®

To Whom It May Concern

It is much pleasure to announce that Ms. Harnoor Kaur, a student of B.E. in Biotechnology, from SMVIT, Bangalore has successfully registered in BioNome as a Bioinformatics Research Intern from 26th October 2023 to 24th November 2023 under the guidance of Ms. Susha D in our Bioinformatics Board in Bangalore, India.

With Regards,

Sameer Sharma

CSO and Director

BioNome

Hennur Cross, Bengaluru

India - 560043 E:

sameer@bionome.in www.bionome.in

**AN INTERNSHIP REPORT ENTITLED
A STUDY ON PRODUCTION OF SOAP AND DETERGENT AND ITS
QUALITATIVE ANALYSIS**

Submitted by



**DEPARTMENT OF BIOTECHNOLOGY
ENGINEERING**

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Affiliated to Visvesvaraya Technological University, Belgaum, Karnataka)
Krishnadevarayanagar, Hunasamaranahalli, Off. International Airport Road, Bangalore - 562157

JYOTHI.V

USN:1MV21BT029

Under the guidance of

SRI. VIDYA PATANKAR A M(QAD)

SRI. M.N.SHASHIKANTH A M (DP)

SMT. SANDHYA K G. (P&M)

**KARNATAKA SOAPS AND DETERGENT LIMITED
Yeshwanthpur, Bengaluru, Karnataka-560086**



KARNATAKA SOAPS & DETERGENTS LIMITED.

BANGALORE-55

(A Government of Karnataka Undertaking)

No: 27, Industrial Suburb, P.B No: 5531

Bengaluru-Pune Highway, Rajajinagar, Bengaluru-560055, KARNATAKA

CERTIFICATE

NO: KSDL/HRD/TRAINING/23-24/08

Date: 27.11.2023

This is to certify that **Ms. Jyothi.V**, Reg No:1MV21BT029, Student of B.E(Biotechnology), Sir.M.Visvesvaraya Institute of Technology, Krishnadevarayanagar, Hunasamaranahalli, Bengaluru-562157, has completed her Internship work on "A Study on Manufacturing, Production Process and Quality Analysis" at Karnataka Soaps & Detergents Limited Bengaluru-560055 period from:31.10.2023 to 27.11.2023

During Internship work on her academic ability and character was good.


MANAGER

Human Resource Development

K.C. SUNDARAMUTHY

Manager (HRD)

KARNATAKA SOAPS AND DETERGENTS LTD,
BANGALORE-560055

Place: Bengaluru



SIRM.VISVESVARAYAINSTITUTE OF TECHNOLOGY
BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belgaum, Karnataka)
DEPARTMENT OF BIOTECHNOLOGY ENGINEERING



CERTIFICATE

This is to certify that Ms Jyothi.V (1MV21BT029), a bonafide student of SIRM Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed training on the topic "Study On Production of Soap and Detergent & Its Qualitative Analysis" at Karnataka Soaps and Detergent Limited under the guidance of Smt. Vidya Patankar, Sir Shashikanth and Smt. Sandhya K.G during the year 2023.

1. *Patankar*
2. *Sandhya K.G*
3. *Shashikanth*
Signature of the



**INTERNSHIP REPORT ON
PURIFICATION AND ANALYSIS
TECHNIQUES AND INSTRUMENTATION**

UNDER THE GUIDANCE OF

Dr. POONAM CHAUHAN

ASSOCIATE SCIENTIST

MERCK

SUBMITTED BY:

KEERTHAN SUBBAIAH N

1MV21BT030

BACHELOR OF ENGINEERING

IN

BIOTECHNOLOGY



SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY

HUNASAMARANAHALLI, YELAHANKA

BENGALURU-562157

CERTIFICATE

CERTIFICATE of Internship

Presented to

Ms. Keerthan Subbaiah N

For attending and successfully completing Internship on

Purification and Analysis Techniques and Instrumentation

Conducted during 30th October 2023 - 23rd November 2023

Wishing all the best for your future endeavor.



Dr. Ravindra Vikram Singh, Phd, FRSC
Director and Head - R&D Technology and Innovation

engage
experience
advance

Merck R&D, Technology and Innovation Center (MRTIC)
Bangalore, India



INTERNSHIP REPORT ON
"BIOINFORMATICS BASIC TOOLS"

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

Bachelor of Engineering in Biotechnology

Submitted by

NAME: MANALI KULKARNI

USN NO.: 1MV21BT032

Under the guidance of

Ms. SUSHI D

Senior bioinformatics analyst at Bionome

DEPARTMENT OF BIOTECHNOLOGY



SIR M VISVESHVARAYA INSTITUTE OF TECHNOLOGY

Bangalore-562157

DEPARTMENT OF BIOTECHNOLOGY



2023-2024

CERTIFICATE

This is to certify that the project undertaken by Manali Kulkarni, Sir M. Visvesvaraya Institute of Technology of VI Semester, bearing the USN No. ,1MV21BTO32 of the Department of Biotechnology is a bonafide work carried out in partial fulfillment for the award of Bachelor's degree in Biotechnology Engineering prescribed by the Visvesvaraya Technological University, Belgaum during the year 2023-2024. The project report has been approved as it satisfies the academic requirements in respect of project prescribed for Bachelor of Engineering degree.

Dr. H. G. Nagaraj
2nd & HOD,
Biotechnology, SVIT
SVIT

PRINCIPAL
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY
Krishnagiri
Internal
Dr. Rakesh S. G.
Principal
Sir MVIT

**BioNome**

Date: 03/11/2023

To Department of Biotechnology, Sir MVIT

It is much pleasure to announce that Ms. Manali Kulkarni, a student of B.E. in Biotechnology, from SMVIT, Bangalore has successfully registered in **BioNome** as a **Bioinformatics Research Intern** from 26th October 2023 to 24th November 2023 under the guidance of Ms. Susha D in our Bioinformatics Board in Bangalore, India.

With Regards,

Sameer Sharma**CSO and Director****BioNome****HennurCross, Bengaluru****India-560043.**

VISVESVARAYA TECHNOLOGICAL UNIVERSITY BELAGAVI



**INTERNSHIP REPORT (INT2INT68)
ON**

A Study on Manufacturing, Production process and Quality Analysis of perfume

**Submitted in partial fulfilment of the requirements for the award of
Bachelor of Engineering in Biotechnology For the academic year
2021-2025**

**Submitted by:
Mohammed Farhan Zaid
(IMV21BT033)**

**Internship carried out at
Sultan's perfume works**

External Guide:

Abdul Jabbar

Manager

**Sultan's Perfume works
Velahanka**



**DEPARTMENT OF BIOTECHNOLOGY
SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY
Bengaluru-562157**

INTERNSHIP CERTIFICATE



Bangalore - 64
#29, Thirumenahalli Main Road, Near Haj House Yelahanka
Post Bangalore - 560064

CERTIFICATE OF INTERNSHIP

Date: 22.12.2023

This is to certify that Mr.Mohammed Farhan Zaid, Reg no:1MV21BT033,
Student of B.E (Biotechnology), Sir.M.Visvesvaraya Institute of Technology,
Krishnadevarayanagar, Hunasamaranahalli, Bengaluru-562157, has completed
his Internship work on "A Study on Manufacturing, Production process
and Quality Analysis" at Sultan's perfume Bengaluru-560077 period from:

22.11.2023 to 22.12.2023

During Internship work on his academic ability and character was good.

For SULTAN'S PERFUMES

Proprietor

Place : Bangalore

Manager

Human resource development



INTERNSHIP REPORT ON
"BIOINFORMATICS BASIC TOOLS"

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

Bachelor of Engineering in Biotechnology

Submitted by

NAME: PAVITHRA K P

USN NO.: 1MV21BT034

Under the guidance of

Ms. SUSHA D

Senior bioinformatics analyst at Bionome

DEPARTMENT OF BIOTECHNOLOGY



Estd. 1986

SIR M VISVESHVARAYA INSTITUTE OF TECHNOLOGY

Bangalore-562157

DEPARTMENT OF BIOTECHNOLOGY



2023-2024

CERTIFICATE

This is to certify that the project undertaken by Pavithra K P, Sir M. Visvesvaraya Institute of Technology of VI Semester, bearing the USN No. ,1MV21BT034 of the Department of Biotechnology is a bonafide work carried out in partial fulfillment for the award of Bachelor's degree in Biotechnology Engineering prescribed by the Visvesvaraya Technological University, Belgaum during the year 20232024. The project report has been approved as it satisfies the academic requirements in respect of project prescribed for Bachelor of Engineering degree.

Dr. H G Nagendra
Prof. & HOD,
Biotechnology, Sir
MVIT

PRINCIPAL

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

Krishnadevaraya
International Airport

Principal

Sir MVIT

Date: 03/11/2023



BioNome®

To Department of Biotechnology, Sir MVIT

It is much pleasure to announce that Ms. Pavithra k P(1MV21BT034), a student of B.E. in Biotechnology, from SMVIT, Bangalore has successfully registered in **BioNome** as a **Bioinformatics Research Intern** from 26th October 2023 to 24th November 2023 under the guidance of Ms. Susha D in our Bioinformatics Board in Bangalore, India.

With Regards,

Sameer Sharma

CSO and Director

BioNome

HennurCross, Bengaluru

India-560043.

Shwara Temple road, Near Reliance Fresh,
Kalyana Nagar post, Bengaluru, 560043

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BioNome

CERTIFICATE OF COMPLETION

This certificate is awarded to

Pavithra K P

In recognition of his/her hard work and dedication in completing the

Bioinformatics - A Working Concept (Basics, Development and Future)

Training Duration - October 24, 2023 - November 24, 2023

Sameer Sharma
(Chief Scientific officer)

