

### LIST OF CERTIFICATE PROGRAMS

A. Y: 2021-2022

S. NO.	NAME OF THE PROGRAM	DATE	NO OF STUDENTS PARTICIPATED
1	A Two Week Add-On Program on Machine Learning Applications with Python	08.11.2021 To 23.11.2021	90
2	A Two Week Add-On Program on Natural Language Processing	07.03.2022 To 23.03.2022	97
3	A Two Week Add-On Program on Hands-on Mastery of RT-PCR	16.03.2022 To 04.04.2022	105
4	A Two Week Add-On Program on Relationship on Food Habits and Lifestyle Diseases	01.12.2021 To 17.12.2021	79
5	A Two Week Add-On Program on Artificial Intelligence in Biotechnological Applications	11.04.2022 To 29.04.2022	64
6	A Two Week Add-On Program on Production of Wine using Fruits as Substrate	11.04.2022 To 29.04.2022	64



DIRECTOR

Director  
MITS School of Biotechnology  
Bhubaneswar



Date: 28-10-2021

## CIRCULAR




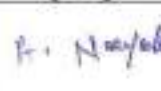
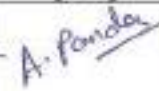

It is hereby informed to all final/pre-final year students of BCA that the Department of Computer Science of this institute is conducting a Two Week Add-On program on **MACHINE LEARNING APPLICATIONS WITH PYTHON** from **08-11-2021** to **23-11-2021**. Interested students shall register their names at the office of the coordinator on or before 4 PM, **04-11-2021**.

**Venue of the Programme** : Conference Hall, MITS School of Biotechnology.

**Coordinator** : **Prof. Bibhudatta Tripathy**  
Asst. Professor  
Department of Computer Science  
MITS School of Biotechnology

  
**DIRECTOR**  
MITS School of Biotechnology  
Bhubaneswar

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CE: For information					

## REGISTRATION FORM

Name.....

Course.....Yr(1/2/3)

Roll No.....

Institution.....

Address for Communication:

.....

.....

.....

Mobile.....

Email.....

Signature

Application to be submitted online in the above format along with the scanned copy of the registration form.

Last Date of Registration: 04.11.2021

Email: bibhudatta2019@gmail.com

**Address for Communication**

**Prof. Bibhudatta Tripathy**  
Coordinator, Asst Professor  
Contact: +91-9040134987

**Chief Patron**

**Er. Sriram Panda**  
Chief Executive  
MITS Group

**Patron**

**Dr. G.K. Panda**  
Director  
MITS School of Biotechnology

**Convenor**

**Dr. Tapaswini Nayak**  
Head  
Dept. of Computer Science

**Coordinator**

**Prof. Bibhudatta Tripathy**  
Asst Professor  
Dept. of Computer Science

**Advisory Committee**

**Prof. Panchami Padmasana**  
Dept. of Computer Science

**Mr. S. Satrusallya**  
Dept. of Chemistry

**Dr. Satyananda Patel**  
Dept. of Biotechnology

**A TWO-WEEK ADD-ON  
PROGRAMME  
ON**



**MACHINE LEARNING  
APPLICATIONS WITH  
PYTHON**

Programme Schedule

08-11-2021 To 23-11-2021



Organized By:

**मिहस जैव प्रौद्योगिकी संस्थान**  
**MITS SCHOOL OF BIOTECHNOLOGY**

Venue:

2(P), Infocity, Patia  
Bhubaneswar-751024 (Odisha)  
Website: msb.ac.in  
Email: principal@msb.ac.in

## About College

Consistently ranking as the best institute in the eastern part of India, MITS School of Biotechnology (MSB) is a self financing professional organisation that was founded in 2003. The faculty consists of having qualification of PhD, M.Tech as well as experience in both Academics and industrial research, so as the student graduates, who are equally impressive mostly working in leading industries of Biotechnology, Pharma and IT. MSB is considered to be most selective, accepting, growing and proven Institute under Utkal University. The institute is located at the prime location of Infocity, Bhubaneswar. This prestigious institute includes popular programs of Biotechnology, Applied Micro Biology and Computer Science.

## Courses Offered at MSB

BCA	- 3 Years
B.Sc Biotechnology	- 3 Years
M.Sc Biotechnology	- 2 Years
M.Sc App. Microbiology	- 2 Years

## About Programme

Artificial Intelligence and Machine Learning are everywhere. Chances are that you are using them and not even aware about that. In Machine Learning, computers, software, and devices perform via cognition similar to human brain. Machine learning is a type of AI that provides computers with the ability to learn without being explicitly programmed. Machine learning focuses on the development of Computer Programs that can change when exposed to new data. In this article, we'll see basics of Machine Learning, and implementation of a simple machine-learning algorithm using python.



## Objective of the Programme

The main objective of studying machine learning with Python is to learn how to use machine learning tools and libraries to train your programs to recognize patterns and extract knowledge from data. Python is a popular programming language for machine learning because it has a large number of powerful libraries and frameworks that make it easy to implement machine learning algorithms.



### Resource Person

**Prof. Chhabi Sethi**

Dept. of Computer Science  
MSB, Bhubaneswar



Date: 07-11-2021

## REGISTERED STUDENT LIST

Name of the Programme: A Two Week Add-On Program on MACHINE LEARNING APPLICATIONS WITH PYTHON  
08-11-2021 to 23-11-2021

SN	Reg. No	Name of the Student	Year Branch	Signature
1	Y21UC01	ABHISHEK NAYAK	3 <sup>rd</sup> Year BCA	Abhishek Nayak
2	Y21UC02	AJIT KUMAR ROUT	3 <sup>rd</sup> Year BCA	Ajit Kumar Rout
3	Y21UC03	AKASH GOUTAM	3 <sup>rd</sup> Year BCA	Akash Goutam
4	Y21UC04	ARCHITA BARAL	3 <sup>rd</sup> Year BCA	Archita Baral
5	Y21UC05	ASHUTOSH MOHARANA	3 <sup>rd</sup> Year BCA	Ashutosh Maharana
6	Y21UC06	ASUTOSH PATTANAİK	3 <sup>rd</sup> Year BCA	Ashutosh Pattanaik
7	Y21UC07	ASUTOSH PADHI	3 <sup>rd</sup> Year BCA	Ashutosh Padhi
8	Y21UC08	AYUSH KUMAR SAHOO	3 <sup>rd</sup> Year BCA	Ayush Kumar Sahoo
9	Y21UC09	B ARPAN	3 <sup>rd</sup> Year BCA	B Arpan
10	Y21UC10	BADAL BALABANTARAY	3 <sup>rd</sup> Year BCA	Badal Balabantaray
11	Y21UC11	BADRI NARAYAN PATRA	3 <sup>rd</sup> Year BCA	Badri Narayan Patra
12	Y21UC12	BANSIKA DASH	3 <sup>rd</sup> Year BCA	Bansika Dash
13	Y21UC13	BIMALENDU BARIK	3 <sup>rd</sup> Year BCA	Bimalendu Barik
14	Y21UC14	BISWAJEET BISWAL	3 <sup>rd</sup> Year BCA	Biswajeet Biswal
15	Y21UC15	BISWAJIT BEHERA	3 <sup>rd</sup> Year BCA	Biswajit Behera
16	Y21UC16	BISWAJYOTI RAJ	3 <sup>rd</sup> Year BCA	Biswajyoti Raj
17	Y21UC17	CHINMAY SAHU	3 <sup>rd</sup> Year BCA	Chinmay Sahu
18	Y21UC18	ITISHREE ROUT	3 <sup>rd</sup> Year BCA	Itishree Rout
19	Y21UC19	JIGYANSHU NAYAK	3 <sup>rd</sup> Year BCA	Jigyanshu Nayak
20	Y21UC20	JITENDRA SAHOO	3 <sup>rd</sup> Year BCA	Jitendra Sahoo
21	Y21UC21	KOMAL NISSA	3 <sup>rd</sup> Year BCA	Komal Nissa
22	Y21UC22	LAXMIPRIYA MAHARANA	3 <sup>rd</sup> Year BCA	Laxmipriya Maharana
23	Y21UC23	LOKESH GOUNDER	3 <sup>rd</sup> Year BCA	Lokesh Gounder

Pg 1 of 2

24	Y21UC24	MAHARAJA ASUTOSH MOHANTY	3 <sup>rd</sup> Year BCA	Maharaja asutosh Mohanty
25	Y21UC25	MANAS RANJAN DASH	3 <sup>rd</sup> Year BCA	Manash Ranjan Dash
26	Y21UC26	NITISH KUMAR	3 <sup>rd</sup> Year BCA	Nitish Kumar
27	Y21UC27	PABITRA KUMAR DAS	3 <sup>rd</sup> Year BCA	Pabitra Kumar Das
28	Y21UC28	PRAKASH KUMAR	3 <sup>rd</sup> Year BCA	Prakash Kumari
29	Y21UC29	PRANATI PAL	3 <sup>rd</sup> Year BCA	Pranati Pal
30	Y21UC30	PRASAD KUMAR BHOKTA	3 <sup>rd</sup> Year BCA	Prasad Kumar Bhokta
31	Y21UC31	PRASANT KUMAR	3 <sup>rd</sup> Year BCA	Prasant Kumar
32	Y21UC32	PRATAP KUMAR DAS	3 <sup>rd</sup> Year BCA	Pratap Kumar Das
33	Y21UC33	PRITAM RAHUL RANJAN	3 <sup>rd</sup> Year BCA	Preetam Rahul Ranjan
34	Y21UC34	PRIYANKA DASH	3 <sup>rd</sup> Year BCA	Priyanka Dash
35	Y21UC35	SHIVANANDA MOHAPATRA	3 <sup>rd</sup> Year BCA	Shivananda Mohapatra
36	Y21UC36	SHREEMAN SWAGAT	3 <sup>rd</sup> Year BCA	Shreeman Swagat
37	Y21UC37	SHUBHAM A. MALLICK	3 <sup>rd</sup> Year BCA	Shubham A. Mallik
38	Y21UC38	SLIPA PATTANAİK	3 <sup>rd</sup> Year BCA	Slipa pattanaik
39	Y21UC39	SMRUTI RANJAN SAHOO	3 <sup>rd</sup> Year BCA	Smruti Ranjan Sahoo
40	Y21UC40	SMRUTI RANJAN SAHOO	3 <sup>rd</sup> Year BCA	Smruti Ranjan Sahoo
41	Y21UC41	SNEHANJALI BARIK	3 <sup>rd</sup> Year BCA	Snehanjali Barik
42	Y21UC42	SOMYA RANJAN SAHOO	3 <sup>rd</sup> Year BCA	Somya Ranjan Sahoo
43	Y21UC43	SWOPENDU OJHA	3 <sup>rd</sup> Year BCA	Swopendu Ojha
44	Y21UC44	SWOPNAJEET PRADHAN	3 <sup>rd</sup> Year BCA	Swoprajee Pradhan
45	Y21UC45	SYED SHAYAN ALI	3 <sup>rd</sup> Year BCA	Syed Shayan Ali
46	Y21UC46	TAPASWINI NANDA	3 <sup>rd</sup> Year BCA	Tapaswini Nanda
47	Y21UC47	UTTAM KUMAR	3 <sup>rd</sup> Year BCA	Uttam Kumar
48	Y21UC48	UTTAM KUMAR KHANDUAL	3 <sup>rd</sup> Year BCA	Uttam Kumar Khandual
49	Y21UC49	YADUNATH PRADHAN	3 <sup>rd</sup> Year BCA	Yadunath Pradhan
50	Y21UC50	ZAID HASSMI	3 <sup>rd</sup> Year BCA	Zaid Hassmi

  
COORDINATOR

  
HOD

Pg 2 of 2

  
DIRECTOR  
Director  
MITS School of Biotechnology  
Bhubaneswar

Date: 08-11-2021

### REGISTERED STUDENT LIST

Name of the Programme: A Two Week Add-On Program on MACHINE LEARNING APPLICATIONS WITH PYTHON  
08-11-2021 to 23-11-2021

SN	Reg. No	Name of the Student	Year Branch	Signature
51	Y21UC51	ALOK PANIGRAHI	3 <sup>rd</sup> Year BCA	Alok Panigrahi
52	Y21UC52	AMAN PATRA	3 <sup>rd</sup> Year BCA	Aman Patra
53	Y21UC53	ANKIT PRADHAN	3 <sup>rd</sup> Year BCA	Ankit Pradhan
54	Y21UC54	ANUJA KUMAR PANDA	3 <sup>rd</sup> Year BCA	Anuja Kumara
55	Y21UC55	ANWESHA JENA	3 <sup>rd</sup> Year BCA	Anwesha Jena
56	Y21UC56	CHINMAYA KUMAR ROUT	3 <sup>rd</sup> Year BCA	Chinmaya Ku Rout
57	Y21UC57	CHINMAYA SAHOO	3 <sup>rd</sup> Year BCA	Chinmaya Sahoo
58	Y21UC58	DEBABRATA DIPANKAR DALEI	3 <sup>rd</sup> Year BCA	Debabrata Dipankar Dalei
59	Y21UC59	DEBASHISH PANDA	3 <sup>rd</sup> Year BCA	Debasish Panda
60	Y21UC60	HIMANSHU SEKHAR DAS	3 <sup>rd</sup> Year BCA	Himanshu Sekhar Das
61	Y21UC61	MADHUSMITA MOHANTY	3 <sup>rd</sup> Year BCA	Madhusmita Mohanty
62	Y21UC62	MITU SASMAL	3 <sup>rd</sup> Year BCA	Mitu Sasmal
63	Y21UC63	N ANAND REDDY	3 <sup>rd</sup> Year BCA	N Anand Reddy
64	Y21UC64	NIKHIL KUMAR SHARMA	3 <sup>rd</sup> Year BCA	Nikhil K. Sharma
65	Y21UC65	NISHIKET SATPATHY	3 <sup>rd</sup> Year BCA	Nishiket Satapathy
66	Y21UC66	NITISH KUMAR	3 <sup>rd</sup> Year BCA	Nitish Kumar
67	Y21UC67	PRIYANKA PRIYADARSHINI	3 <sup>rd</sup> Year BCA	Priyanka Priyadarshini
68	Y21UC68	RAHUL RANJAN PRAHARAJ	3 <sup>rd</sup> Year BCA	Rahul Ranjan Prabharaaj
69	Y21UC69	RAJESH KUMAR SAHOO	3 <sup>rd</sup> Year BCA	Rajesh Kumar Sahoo
70	Y21UC70	RAJKISHORE JENA	3 <sup>rd</sup> Year BCA	Rajkishore Jena
71	Y21UC71	RAVIKANT PANDEY	3 <sup>rd</sup> Year BCA	Ravikant Pandey
72	Y21UC72	REBA ROY	3 <sup>rd</sup> Year BCA	Reba Roy
73	Y21UC73	SARTHAK RANJAN NAYAK	3 <sup>rd</sup> Year BCA	Sarthak Ranjan Nayak
74	Y21UC74	SATYAJEET PANDA	3 <sup>rd</sup> Year BCA	Satyajeet Panda
75	Y21UC75	SHIBANANDA PRADHAN	3 <sup>rd</sup> Year BCA	Shibananda Pradhan

76	Y21UC76	SHISHIR KUMAR BARIK	3 <sup>rd</sup> Year BCA	Shishir Kumar Barik
77	Y21UC77	SIBANANDA MOHAPATRA	3 <sup>rd</sup> Year BCA	Sibananda Mohapatra
78	Y21UC78	SIBANSU MOHAPATRA	3 <sup>rd</sup> Year BCA	Sibansu Mohapatra
79	Y21UC79	SIDHARTH KANUNGO	3 <sup>rd</sup> Year BCA	Sidharth Kanungo
80	Y21UC80	DIBYA JYOTI CHOUDHARY	3 <sup>rd</sup> Year BCA	Dibya Jyoti Choudhary
81	Y21UC81	SONALI NAYAK	3 <sup>rd</sup> Year BCA	Sonali Nayak
82	Y21UC82	SONALI PRIYADARSHINI	3 <sup>rd</sup> Year BCA	Sonali Priyadarshini
83	Y21UC83	SONMAYEE NAYAK	3 <sup>rd</sup> Year BCA	Sonmayee Nayak
84	Y21UC84	SOUMYASHREE BISWAL	3 <sup>rd</sup> Year BCA	Soumyashree Biswal
85	Y21UC85	SOUMYASNIGDHA BARIK	3 <sup>rd</sup> Year BCA	Soumyasnigdha Barik
86	Y21UC86	SRITI PRIYADARSHINI SWAIN	3 <sup>rd</sup> Year BCA	Sriti Priyadarshini Swain
87	Y21UC87	SRUTI LIPI MOHAPATRA	3 <sup>rd</sup> Year BCA	Sruti Lipi Mohapatra
88	Y21UC88	SUBHASHREE SAHOO	3 <sup>rd</sup> Year BCA	Subhashree Sahoo
89	Y21UC89	SUBHRAJYOTI MANDAL	3 <sup>rd</sup> Year BCA	Subhrajyoti Mandal
90	Y21UC90	SUNIL JENA	3 <sup>rd</sup> Year BCA	Sunil Jena

  
COORDINATOR

  
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DIRECTOR

Director  
MITS School of Biotechnology  
Bhubaneswar





# मिंटस जैव प्रौद्योगिकी संस्थान MITS SCHOOL OF BIOTECHNOLOGY

## COURSE SCHEDULE

Name of the Program: A Two Week Add-On Programme on MACHINE LEARNING APPLICATIONS  
WITH PYTHON

08-11-2021 to 23-11-2021

SN	Date	Topic	Resource Person
1	08-11-2021	Introduction to Machine Learning	Prof. C Sethi
2	09-11-2021	Python for Machine Learning	Prof. C Sethi
3	10-11-2021	Introduction to Regression and its types	Prof. C Sethi
4	11-11-2021	Introduction to Classification	Prof. C Sethi
5	12-11-2021	Evaluation in Regression Models	Prof. C Sethi
6	13-11-2021	Multiple Linear Regression	Prof. C Sethi
7	15-11-2021	Introduction to Decision Tree and its Classification	Prof. C Sethi
8	16-11-2021	Logistic Regression Training	Prof. C Sethi
9	17-11-2021	Support Vector Machine	Prof. C Sethi
10	18-11-2021	Introduction to Clustering	Prof. C Sethi
11	19-11-2021	About K-Means	Prof. C Sethi
12	20-11-2021	More on K-Means	Prof. C Sethi
13	22-11-2021	Hands On Session	Prof. C Sethi
14	24-11-2021	Hands On Session	Prof. C Sethi

  
COORDINATOR

  
HOD

  
DIRECTOR  
Director  
MITS School of Biotechnology  
Bhubaneswar



## PROGRAM REPORT

**Name of the Event:** A Two Week Add-On Program on **MACHINE LEARNING APPLICATIONS WITH PYTHON**

**Date:** 08-11-2021 To 23-11-2021

**Resource Person:** **Prof. C Sethi**  
Asst. Professor, Department of Computer Science,  
MSB, Bhubaneswar.  
Contact Number: 9861293070

**Coordinator:** **Prof. Bibhudutta Tripathy**  
Asst. Professor, Department of Computer Science,  
MSB, Bhubaneswar.

**Number of students attended:** 90

**Venue:** Conference Hall, MITS School of Biotechnology.

MITS school of Biotechnology, Bhubaneswar, organized a two week add-on program on **MACHINE LEARNING APPLICATIONS WITH PYTHON** for BCA final semester students. Prof. C Sethi was the resource person for the said event. Python, when used in machine learning, offers developers of all skill sets exceptional versatility and power. Developers can use Python to develop a variety of applications because it integrates well with other software while its simple syntax makes it a good choice for coding algorithms and collaborating across teams. Python also has a huge number of libraries and frameworks that are very good for machine learning (such as Scikit-Learn), which handle basic machine learning algorithms. Totally 90 students were participated in this training program and after the completion of the program they were able to understand the following objectives and learning outcomes.

### Objectives:

1. Learning basic concepts of various machine learning methods is primary objective of this course.
2. This course specifically make student able to learn mathematical concepts.
3. Algorithms used in machine learning techniques for solving real world problems.
4. Developing new applications based on machine learning.

### Learning Outcomes:

1. To gain foundations of machine learning based subject or tools.
2. To understand industry need skills on ML projects.
3. To understand about the roles & responsibilities that a ML Engineer plays
4. To expertise basics and ML usage of Python
5. To work with online data in real time basis.

6. How to apply ML techniques on real world problem or to develop AI based applications.



This course was very useful to the students and their feedback is positive. The management and Professor (Dr.) G. K. Panda director of MSB thanked the resource person and participants for making the programme successful.

  
**COORDINATOR**

  
**HOD**

  
**DIRECTOR**  
Director  
MITS School of Biotechnology  
Bhubaneswar



मिट्स जैव प्रौद्योगिकी संस्थान  
**MITS SCHOOL OF BIOTECHNOLOGY**  
2(P), INFOCITY, PATIA, BHUBANESWAR-751024



## *Certificate*

The MITS School of Biotechnology hereby certifies that

**AKASH GOUTAM**  
BCA-3rd Year

has successfully completed  
A Two Week Add-On Programme On  
**MACHINE LEARNING APPLICATIONS WITH PYTHON**  
08-11-2021 To 23-11-2021

COORDINATOR

DIRECTOR



मिट्स जैव प्रौद्योगिकी संस्थान  
**MITS SCHOOL OF BIOTECHNOLOGY**  
2(P), INFOCITY, PATIA, BHUBANESWAR-751024



## *Certificate*

The MITS School of Biotechnology hereby certifies that

**AJIT KUMAR ROUT**  
BCA-3rd Year

has successfully completed  
A Two Week Add-On Programme On  
**MACHINE LEARNING APPLICATIONS WITH PYTHON**  
08-11-2021 To 23-11-2021

COORDINATOR

DIRECTOR



मिड्स जैव प्रौद्योगिकी संस्थान  
**MITS SCHOOL OF BIOTECHNOLOGY**  
2(P), INFOCITY, PATIA, BHUBANESWAR-751024



## *Certificate*

The MITS School of Biotechnology hereby certifies that

**BANSIKA DASH**  
BCA-3rd Year

has successfully completed  
A Two Week Add-On Programme On  
**MACHINE LEARNING APPLICATIONS WITH PYTHON**  
08-11-2021 To 23-11-2021

COORDINATOR

DIRECTOR



मिड्स जैव प्रौद्योगिकी संस्थान  
**MITS SCHOOL OF BIOTECHNOLOGY**  
2(P), INFOCITY, PATIA, BHUBANESWAR-751024



## *Certificate*

The MITS School of Biotechnology hereby certifies that

**ARCHITA BARAL**  
BCA-3rd Year

has successfully completed  
A Two Week Add-On Programme On  
**MACHINE LEARNING APPLICATIONS WITH PYTHON**  
08-11-2021 To 23-11-2021

COORDINATOR

DIRECTOR



मिट्स जैव प्रौद्योगिकी संस्थान  
**MITS SCHOOL OF BIOTECHNOLOGY**  
2(P), INFOCITY, PATIA, BHUBANESWAR-751024



## *Certificate*

The MITS School of Biotechnology hereby certifies that

**ASUTOSH PADHI**  
BCA-3rd Year

has successfully completed  
A Two Week Add-On Programme On  
**MACHINE LEARNING APPLICATIONS WITH PYTHON**  
08-11-2021 To 23-11-2021

COORDINATOR

DIRECTOR





मिट्स जैव प्रौद्योगिकी संस्थान  
**MITS SCHOOL OF BIOTECHNOLOGY**  
2(P), INFOCITY, PATIA, BHUBANESWAR-751024



## *Certificate*

The MITS School of Biotechnology hereby certifies that

**KOMAL NISSA**  
BCA-3rd Year

has successfully completed  
A Two Week Add-On Programme On  
**MACHINE LEARNING APPLICATIONS WITH PYTHON**  
08-11-2021 To 23-11-2021

COORDINATOR

DIRECTOR



मिड्स जैव प्रौद्योगिकी संस्थान  
**MITS SCHOOL OF BIOTECHNOLOGY**

2(P), INFOCITY, PATIA, BHUBANESWAR-751024



## *Certificate*

The MITS School of Biotechnology hereby certifies that

**PRIYANKA DASH**  
BCA-3rd Year

has successfully completed  
A Two Week Add-On Programme On  
**MACHINE LEARNING APPLICATIONS WITH PYTHON**  
08-11-2021 To 23-11-2021

COORDINATOR

DIRECTOR



मिड्स जैव प्रौद्योगिकी संस्थान  
**MITS SCHOOL OF BIOTECHNOLOGY**  
2(P), INFOCITY, PATIA, BHUBANESWAR-751024



# Certificate

The MITS School of Biotechnology hereby certifies that

**PRANATI PAL**  
BCA-3rd Year

has successfully completed  
A Two Week Add-On Programme On  
**MACHINE LEARNING APPLICATIONS WITH PYTHON**  
08-11-2021 To 23-11-2021

COORDINATOR

DIRECTOR



मिट्स जैव प्रौद्योगिकी संस्थान  
**MITS SCHOOL OF BIOTECHNOLOGY**  
2(P), INFOCITY, PATIA, BHUBANESWAR-751024



# Certificate

The MITS School of Biotechnology hereby certifies that

**NITISH KUMAR**  
BCA-3rd Year

has successfully completed  
A Two Week Add-On Programme On  
**MACHINE LEARNING APPLICATIONS WITH PYTHON**  
08-11-2021 To 23-11-2021

COORDINATOR

DIRECTOR



मिट्स जैव प्रौद्योगिकी संस्थान  
**MITS SCHOOL OF BIOTECHNOLOGY**  
2(P), INFOCITY, PATIA, BHUBANESWAR-751024



## *Certificate*

The MITS School of Biotechnology hereby certifies that

**UTTAM KUMAR**  
BCA-3rd Year

has successfully completed  
A Two Week Add-On Programme On  
**MACHINE LEARNING APPLICATIONS WITH PYTHON**  
08-11-2021 To 23-11-2021

COORDINATOR

DIRECTOR

Date: 25-02-2022

## CIRCULAR


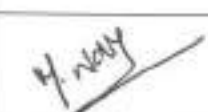


It is hereby informed to all final/pre-final year students of BCA that the Department of Computer Science of this institute is conducting a Two Week Add-On program on **NATURAL LANGUAGE PROCESSING** from **07-03-2022 to 23-03-2022**. Interested students shall register their names at the office of the coordinator on or before 4 PM, 04-03-2022.

**Venue of the Programme** : Conference Hall, MITS School of Biotechnology.

**Coordinator** : **Prof. Bibhudatta Tripathy**  
Asst. Professor  
Department of Computer Science  
MITS School of Biotechnology

  
**DIRECTOR**  
Director  
MITS School of Biotechnology  
Bhubaneswar

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			A. Nayak	A. Panda	
CE: For information					

## REGISTRATION FORM

Name.....

Course.....Yr(1/2/3)

Roll No.....

Institution.....

Address for Communication:

Mobile.....

Email.....

Signature

Application to be submitted online in the above format along with the scanned copy of the registration form.

Last Date of Registration: 04-03-2022

Email: [bibhudatta2019@gmail.com](mailto:bibhudatta2019@gmail.com)

Address for Communication

**Prof. Bibhudatta Tripathy**  
Coordinator, Asst Professor  
Contact: +91-9040134987

**Chief Patron**  
**Er. Sriram Panda**  
Chief Executive  
MITS Group

**Patron**  
**Dr. G.K. Panda**  
Director  
MITS School of Biotechnology

**Convenor**  
**Prof. Chhabi Sethi**  
Asst. Professor  
Dept. of Computer Science

**Coordinator**  
**Prof. Bibhudatta Tripathy**  
Asst Professor  
Dept. of Computer Science

**Advisory Committee**  
**Prof. Bibhudatta Tripathy**  
Dept. of Computer Science

**Mr. S. Satrusallya**  
Dept. of Chemistry

**Dr. Satyananda Patel**  
Dept. of Biotechnology

**A TWO-WEEK ADD-ON  
PROGRAM  
ON**



## NATURAL LANGUAGE PROCESSING

Programme Schedule

07-03-2022 to 23-03-2022



Organized By:

**मिट्स जैव प्रौद्योगिकी संस्थान**  
**MITS SCHOOL OF BIOTECHNOLOGY**

Venue:

2(P), Infocity, Patia  
Bhubaneswar-751024 (Odisha)  
Website: [msb.ac.in](http://msb.ac.in)  
Email: [principal@msb.ac.in](mailto:principal@msb.ac.in)

## About College

Consistently ranking as the best institute in the eastern part of India, MITS School of Biotechnology (MSB) is a self financing professional organisation that was founded in 2003. The faculty consists of having qualification of PhD, M.Tech as well as experience in both Academics and industrial research, so as the student graduates, who are equally impressive mostly working in leading industries of Biotechnology, Pharma and IT. MSB is considered to be most selective, accepting, growing and proven institute under Utkal University. The institute is located at the prime location of Infocity, Bhubaneswar. This prestigious institute includes popular programs of Biotechnology, Applied Micro Biology and Computer Science.

## Courses Offered at MSB

BCA	- 3 Years
B.Sc Biotechnology	- 3 Years
M.Sc Biotechnology	- 2 Years
M.Sc App. Microbiology	- 2 Years

## About Programme

This educational program serves as an initiation into the theories and methods involved in the comprehension and creation of natural language. It delves into crucial aspects such as stemming, which involves simplifying words to their root forms, lemmatization for identifying base words, and part-of-speech tagging to categorize words in a sentence. Parsing, another key topic, focuses on the structural analysis of sentences, while machine translation explores the process of automatically translating text from one language to another. Students will gain a comprehensive understanding of these fundamental concepts and in language processing and generation.



## Objective of the Programme

In the realm of data literacy, it's imperative to differentiate between the concepts of data, information, and knowledge. Understanding that data serves as the raw material, which when processed and contextualized, transforms into information that carries meaning and significance, is a foundational aspect of data literacy. Furthermore, acknowledging the intrinsic value of data in society is vital



Resource Person

**Prof. S. K. Nayak**

Head, Dept. of Computer Science  
MSB, Bhubaneswar



Date: 07-03-2022

### REGISTERED STUDENT LIST

Name of the Programme: Two Week Add-On program on NATURAL LANGUAGE PROCESSING

07-03-2022 to 23-03-2022

SN	Reg. No	Name of the Student	Year Branch	Signature
1	Y22CS01	KARUNA SANKAR NAIK	BCA 2 <sup>nd</sup> Year	Karuna Sankar Naik
2	Y22CS02	ANUSKA ANURITA MOHARANA	BCA 2 <sup>nd</sup> Year	Anuska Anurita Moharana
3	Y22CS03	ASHUTOSH PARIDA	BCA 2 <sup>nd</sup> Year	Ashutosh Parida
4	Y22CS04	DEEPAK KUMAR SAHU	BCA 2 <sup>nd</sup> Year	Deepak Kumar Sahu
5	Y22CS05	AKASH KUMAR CHOUDHARI	BCA 2 <sup>nd</sup> Year	Akash Kumar Choudhary
6	Y22CS06	BINAYA KUMAR BHUYAN	BCA 2 <sup>nd</sup> Year	Binaya Kumar Bhuyan
7	Y22CS07	SUMIT OJHA	BCA 2 <sup>nd</sup> Year	Sumit Ojha
8	Y22CS08	AUROSMARAN MOHAPATRA	BCA 2 <sup>nd</sup> Year	Aurosmaran Mohapatra
9	Y22CS09	PRAJOJITA MOHANTY	BCA 2 <sup>nd</sup> Year	Prajojita Mohanty
10	Y22CS10	PRANAYA KUMAR SWAIN	BCA 2 <sup>nd</sup> Year	Pranaya Kumar Swain
11	Y22CS11	AMAN KUMAR BADI	BCA 2 <sup>nd</sup> Year	Aman Kumar Badi
12	Y22CS12	ANKIT RAJ SAHU	BCA 2 <sup>nd</sup> Year	Ankit Raj Sahu
13	Y22CS13	SAMPAD KUMAR MOHAPATRA	BCA 2 <sup>nd</sup> Year	Sampad Kumar Mohapatra
14	Y22CS14	AYUSH MALLICK	BCA 2 <sup>nd</sup> Year	Ayush Mallik
15	Y22CS15	SONALI ROUSTRAY	BCA 2 <sup>nd</sup> Year	Sonali Roustray
16	Y22CS16	RAJESH KUMAR BEHERA	BCA 2 <sup>nd</sup> Year	Rajesh Kumar Behera
17	Y22CS17	SUDHANSHU KUMAR SAHOO	BCA 2 <sup>nd</sup> Year	Sudhanshu Kumar Sahoo
18	Y22CS18	PRABHAKAR CHOUDHURY	BCA 2 <sup>nd</sup> Year	Prabhakar Choudhury
19	Y22CS19	RUDRA PRASAD ROUSTRAY	BCA 2 <sup>nd</sup> Year	Rudra Prasad Roustray
20	Y22CS20	ASHISH KUMAR SAHOO	BCA 2 <sup>nd</sup> Year	Ashish Kumar Sahoo
21	Y22CS21	SRIRAM SEKHAR DASH	BCA 2 <sup>nd</sup> Year	Sriram Sekhar Dash
22	Y22CS22	SURAJ MANDAL	BCA 2 <sup>nd</sup> Year	Suraj Mandal
23	Y22CS23	MAHESH SAHOO	BCA 2 <sup>nd</sup> Year	Mahesh Sahoo

Pg 1 of 4

24	Y22CS24	SUNIL KUMAR SWAIN	BCA 2 <sup>nd</sup> Year	Sunil Kumar Swain
25	Y22CS25	ASUTOSH PRADHAN	BCA 2 <sup>nd</sup> Year	Asutosh Pradhan
26	Y22CS26	BIBAKANANDA PANIGRAHI	BCA 2 <sup>nd</sup> Year	Bibekananda Panigrahi
27	Y22CS27	SAGAR BEHERA	BCA 2 <sup>nd</sup> Year	Sagar Behera
28	Y22CS28	TEHRIM SIDDIQA	BCA 2 <sup>nd</sup> Year	Tehrim Siddiqa
29	Y22CS29	ASUTOSH NAYAK	BCA 2 <sup>nd</sup> Year	Asutosh Nayak
30	Y22CS30	ARPAN NAYAK	BCA 2 <sup>nd</sup> Year	Arpan Nayak
31	Y22CS31	ANIL KUMAR MADALA	BCA 2 <sup>nd</sup> Year	Anil Kumar Madala
32	Y22CS32	MONALISA SAMANTARAY	BCA 2 <sup>nd</sup> Year	Monalisa Samantaray
33	Y22CS33	SAMBIT KUMAR PARIDA	BCA 2 <sup>nd</sup> Year	Sambit Kumar Parida
34	Y22CS34	PRASANTA SATAPATHY	BCA 2 <sup>nd</sup> Year	Prasanta Satapathy
35	Y22CS35	ANANYA ROUSTRAY	BCA 2 <sup>nd</sup> Year	Ananya Roustray
36	Y22CS36	NIRLIPTA JENA	BCA 2 <sup>nd</sup> Year	Nirlipta Jena
37	Y22CS37	PREETISMITA SWAIN	BCA 2 <sup>nd</sup> Year	Preetismita Swain
38	Y22CS38	SANGRAM SWAIN	BCA 2 <sup>nd</sup> Year	Sangram Swain
39	Y22CS39	PRATISH KUMAR SAHOO	BCA 2 <sup>nd</sup> Year	Pratish Kumar Sahoo
40	Y22CS40	SOUMYA RANJAN DASH	BCA 2 <sup>nd</sup> Year	Soumya Ranjan Dash
41	Y22CS41	PRABHU PRASAD PRUSTY	BCA 2 <sup>nd</sup> Year	Prabhu Prasad Prusty
42	Y22CS42	B.D CHANDRASEKHAR MOHANTA	BCA 2 <sup>nd</sup> Year	B.D. Chandrasekhar Mohanta
43	Y22CS43	NIKHIL PRADHAN	BCA 2 <sup>nd</sup> Year	Nikhil Pradhan
44	Y22CS44	SUBRAT KUMAR SAHOO	BCA 2 <sup>nd</sup> Year	Subrat Kumar Sahoo
45	Y22CS45	PRITIRANJAN MALLICK	BCA 2 <sup>nd</sup> Year	Pritirajan Mallik
46	Y22CS46	SOHAN DASH	BCA 2 <sup>nd</sup> Year	Sohan Dash
47	Y22CS47	ASHISH KUMAR SAHOO	BCA 2 <sup>nd</sup> Year	Ashish Kumar Sahoo
48	Y22CS48	SIBANANDA SAHOO	BCA 2 <sup>nd</sup> Year	Sibananda Sahoo
49	Y22CS49	JYOTI RANJAN JENA	BCA 2 <sup>nd</sup> Year	Jyoti Ranjan Jena
50	Y22CS50	CHINMAY DAS	BCA 2 <sup>nd</sup> Year	Chinmay Das
51	Y22CS51	DIKSHA CHOUDHARY	BCA 2 <sup>nd</sup> Year	Diksha Choudhary

52	Y22CS52	NIRUPAMA SWAIN	BCA 2 <sup>nd</sup> Year	Nirupama Swain
53	Y22CS53	SIDHARTH KUMAR DASH	BCA 2 <sup>nd</sup> Year	Sidharth kumar dash
54	Y22CS54	SANATANA PARIDA	BCA 2 <sup>nd</sup> Year	Sanatana Parida
55	Y22CS55	SAGAR BEHERA	BCA 2 <sup>nd</sup> Year	Sagar Behera
56	Y22CS56	DEBASHIS PARIDA	BCA 2 <sup>nd</sup> Year	Debashis Parida
57	Y22CS57	MADHU MALA GHOSH	BCA 2 <sup>nd</sup> Year	Madhu mala ghosh
58	Y22CS58	SOUBHAGYA KUMAR DAS	BCA 2 <sup>nd</sup> Year	Soubhagya Kumar das.
59	Y22CS59	MONALISHA SAHOO	BCA 2 <sup>nd</sup> Year	Monalisha Sahoo
60	Y22CS60	PRIYANKA PRIYADARSHINI MISHRA	BCA 2 <sup>nd</sup> Year	Priyanka Priyadarshini Mishra
61	Y22CS61	PRAGATI BHAKAT	BCA 2 <sup>nd</sup> Year	Pragati Bhakat
62	Y22CS62	RUCHISMITA SAHOO	BCA 2 <sup>nd</sup> Year	Ruchismita saho
63	Y22CS63	RAHUL KUMAR DAS	BCA 2 <sup>nd</sup> Year	Rahul kumar Das
64	Y22CS64	MANOJ KUMAR JENA	BCA 2 <sup>nd</sup> Year	Manoj K. Jena
65	Y22CS65	ASHUTOSH SAMAL	BCA 2 <sup>nd</sup> Year	Ashutosh Samal
66	Y22CS66	SATYAM KUMAR DAS	BCA 2 <sup>nd</sup> Year	Satyam Kumar Das
67	Y22CS67	BISWOJIT NAYAK	BCA 2 <sup>nd</sup> Year	Biswarit nayak.
68	Y22CS68	SUBHASMITA DASH	BCA 2 <sup>nd</sup> Year	Subhasmita Dash
69	Y22CS69	SUBHADARSHINI SAHOO	BCA 2 <sup>nd</sup> Year	Subhadarshini Sahoo
70	Y22CS70	YAJNASENI DAS	BCA 2 <sup>nd</sup> Year	Yajnaseni das
71	Y22CS71	BADAL SINGH	BCA 2 <sup>nd</sup> Year	Badal Singh
72	Y22CS72	BISHAL SAHOO	BCA 2 <sup>nd</sup> Year	Bishal Sahoo
73	Y22CS73	SANDEEP BESHRA	BCA 2 <sup>nd</sup> Year	Sandeep beshra
74	Y22CS74	N.SOMYA RANJAN	BCA 2 <sup>nd</sup> Year	N. Somya Ranjan
75	Y22CS75	MANAS KUMAR SENAPATI	BCA 2 <sup>nd</sup> Year	Manas Kumar Senapati
76	Y22CS76	BIBHUPRASAD MOHAPATRA	BCA 2 <sup>nd</sup> Year	Bibhuprasad Mohapatra
77	Y22CS77	ANKITA PATRA	BCA 2 <sup>nd</sup> Year	ANKITA patra
78	Y22CS78	ANNAPURNA PATRA	BCA 2 <sup>nd</sup> Year	Annapurna Patra

79	Y22CS79	SIBRAJ ROSAN PALAI	BCA 2 <sup>nd</sup> Year	Sibraj Rosan Palai
80	Y22CS80	HRUSHIKESH BEHERA	BCA 2 <sup>nd</sup> Year	Hrushikesh Behera
81	Y22CS81	AMAN KUNJILWAR	BCA 2 <sup>nd</sup> Year	Aman Kunjilwar
82	Y22CS82	SUVENDU DAS	BCA 2 <sup>nd</sup> Year	Suvendu Das
83	Y22CS83	PALLAVI PRIYADARSHINI MAHALA	BCA 2 <sup>nd</sup> Year	Pallavi Priyadarshini Mahala
84	Y22CS84	SALONI PARIDA	BCA 2 <sup>nd</sup> Year	Saloni Parida
85	Y22CS85	OMM PRAKASH ROUT	BCA 2 <sup>nd</sup> Year	O. Prakash Rout
86	Y22CS86	CHIRANJEEV MALLICK	BCA 2 <sup>nd</sup> Year	Chiranjeev Mallik
87	Y22CS87	SUBHAM KUMAR PADHI	BCA 2 <sup>nd</sup> Year	Subham Kumar Padhi
88	Y22CS88	AISHWARYA DAS	BCA 2 <sup>nd</sup> Year	Aishwarya Das
89	Y22CS89	MANMAY NAIK	BCA 2 <sup>nd</sup> Year	Manmay Naik
90	Y22CS90	SUBHASIS BARADA	BCA 2 <sup>nd</sup> Year	Subhasis Barada
91	Y22CS91	SUCHISMITA DASH	BCA 2 <sup>nd</sup> Year	Suchismita Dash
92	Y22CS92	PANKAJ BERA	BCA 2 <sup>nd</sup> Year	Pankaj Bera
93	Y22CS93	SNEHASHIS JENA	BCA 2 <sup>nd</sup> Year	Snehashis Jena
94	Y22CS94	SONALI DASH	BCA 2 <sup>nd</sup> Year	Sonali Dash
95	Y22CS95	KRUTIRANI MISHRA	BCA 2 <sup>nd</sup> Year	Krutirani Mishra
96	Y22CS96	SIDHANTA SWAIN	BCA 2 <sup>nd</sup> Year	Sidhanta Swain
97	Y22CS97	SISIR KANTA BEHERA	BCA 2 <sup>nd</sup> Year	Sisir Kanta Behera

  
COORDINATOR

  
HOD

  
DIRECTOR  
Director  
MITS School of Biotechnology  
Bhubaneswar

### COURSE SCHEDULE

Name of the Program: A Two Week Add-On Programme on **NATURAL LANGUAGE PROCESSING**  
07-03-2022 to 23-03-2022

SN	Date	Topic	Resource Person
1	07-03-2022	Introduction to Natural Language Processing	Prof. S. K. Nayak
2	08-03-2022	Language Syntax and Structure	Prof. S. K. Nayak
3	09-03-2022	Applications of Natural Language Processing	Prof. S. K. Nayak
4	10-03-2022	Intensive review of Python programming	Prof. S. K. Nayak
5	11-03-2022	Introduction to Lambda Functions	Prof. S. K. Nayak
6	12-03-2022	Using Google Colaboratory	Prof. S. K. Nayak
7	14-03-2022	Working with Text Data	Prof. S. K. Nayak
8	15-03-2022	Introduction Text Processing and Analysis	Prof. S. K. Nayak
9	16-03-2022	Text cleaning and Tokenization	Prof. S. K. Nayak
10	17-03-2022	Removal of special characters	Prof. S. K. Nayak
11	18-03-2022	Correcting spellings	Prof. S. K. Nayak
12	19-03-2022	Removal of stopwords	Prof. S. K. Nayak
13	21-03-2022	Hands On Session	Prof. S. K. Nayak
14	22-03-2022	Hands On Session	Prof. S. K. Nayak
15	23-03-2022	Hands On Session	Prof. S. K. Nayak

  
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MITS School of Biotechnology  
Bhubaneswar

2(P), Infocity, Patia, Bhubaneswar  
Pin-751024 (Odisha), INDIA

Website: [www.msb.ac.in](http://www.msb.ac.in)  
Email: [principal@msb.ac.in](mailto:principal@msb.ac.in)



## PROGRAM REPORT

24-03-2022

**Name of the Event:** A Two Week Add-On Programme on **NATURAL LANGUAGE PROCESSING**

**Date:** 07-03-2022 To 23-03-2022

**Resource Person:** **Prof. S. K. Nayak**

Asst. Professor, Department of Computer Science,  
MSB, Bhubaneswar.

Contact Number: 8270619465

**Coordinator:** **Prof. Bibhudatta Tripathy**

Asst. Professor, Department of Computer Science,  
MSB, Bhubaneswar.

**Number of students attended:** 97

**Venue:** Class Room, MITS School of Biotechnology.

MITS school of Biotechnology, Bhubaneswar, organized a two week add-on program on **NATURAL LANGUAGE PROCESSING** for BCA second year students. **Prof. S. K. Nayak** was the resource person for the said event. This course introduces the theory and methodology of natural language understanding and generation. Topics include stemming, lemmatization, parts of speech tagging, parsing, and machine translation. Totally 97 students were participated in this training program and after the completion of the program they were able to understand the following objectives and learning outcomes.

### **Objectives:**

1. Data Literacy - Distinguish between data, information, and knowledge.
2. Data Literacy - Recognize that data can have value and play a key role in society by providing opportunities to expand knowledge, to innovate, and to influence.
3. Data Science - Organize, visualize, and analyze large, complex datasets using descriptive statistics and graphs to make decisions.

### **Learning Outcomes:**

1. Analyze the syntax, semantics, and pragmatics of a statement written in a natural language.

2. Develop a conversational agent that uses natural language understanding and generatio.
3. Apply machine learning algorithms to natural language processing.
4. Write scripts and applications in Python to carry out natural language processing using libraries such as NLTK, Gensim, and spaCY.



A Two Week Add-On Program on **NATURAL LANGUAGE PROCESSING**,  
07-03-2022 To 23-03-2022, Prof. S. K. Nayak.

This course was very useful to the students and their feedback is positive. The management and Professor (Dr.) G. K. Panda director of MSB thanked the resource person and participants for making the programme successful.

  
**COORDINATOR**

  
**HOD**

  
**DIRECTOR**  
Director  
MITS School of Biotechnology  
Bhubaneswar



मिट्स जैव प्रौद्योगिकी संस्थान  
**MITS SCHOOL OF BIOTECHNOLOGY**

2(P), INFOCITY, PATIA, BHUBANESWAR-751024



## Certificate

The MITS School of Biotechnology hereby certifies that

**ARPAN NAYAK**  
BCA-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**NATURAL LANGUAGE PROCESSING**  
07-03-2022 To 23-03-2022

COORDINATOR

DIRECTOR





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**MITS SCHOOL OF BIOTECHNOLOGY**

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## *Certificate*

The MITS School of Biotechnology hereby certifies that

**ANIL KUMAR MADALA**

BCA-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**NATURAL LANGUAGE PROCESSING**  
07-03-2022 To 23-03-2022

COORDINATOR

DIRECTOR



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**MITS SCHOOL OF BIOTECHNOLOGY**  
2(P), INFOCITY, PATIA, BHUBANESWAR-751024



## *Certificate*

The MITS School of Biotechnology hereby certifies that

**SUNIL KUMAR SWAIN**  
BCA-2nd Year

has successfully completed  
**A Two Week Add-On Programme On  
NATURAL LANGUAGE PROCESSING  
07-03-2022 To 23-03-2022**

COORDINATOR

DIRECTOR



मिट्स जैव प्रौद्योगिकी संस्थान  
**MITS SCHOOL OF BIOTECHNOLOGY**  
2(P), INFOCITY, PATIA, BHUBANESWAR-751024



## *Certificate*

The MITS School of Biotechnology hereby certifies that

**RAJESH KUMAR BEHERA**  
BCA-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**NATURAL LANGUAGE PROCESSING**  
07-03-2022 To 23-03-2022

COORDINATOR

DIRECTOR



मिड्स जैव प्रौद्योगिकी संस्थान  
**MITS SCHOOL OF BIOTECHNOLOGY**

2(P), INFOCITY, PATIA, BHUBANESWAR-751024



## *Certificate*

The MITS School of Biotechnology hereby certifies that

**SURAJ MANDAL**  
BCA-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**NATURAL LANGUAGE PROCESSING**  
07-03-2022 To 23-03-2022

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DIRECTOR



मिड्स जैव प्रौद्योगिकी संस्थान  
**MITS SCHOOL OF BIOTECHNOLOGY**  
2(P), INFOCITY, PATIA, BHUBANESWAR-751024



## *Certificate*

The MITS School of Biotechnology hereby certifies that

**PRASANT SATAPATHY**  
BCA-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**NATURAL LANGUAGE PROCESSING**  
07-03-2022 To 23-03-2022

COORDINATOR

DIRECTOR



मिड्स जैव प्रौद्योगिकी संस्थान  
**MITS SCHOOL OF BIOTECHNOLOGY**  
2(P), INFOCITY, PATIA, BHUBANESWAR-751024



## *Certificate*

The MITS School of Biotechnology hereby certifies that

**PRATISH KUMAR SAHOO**  
BCA-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**NATURAL LANGUAGE PROCESSING**  
07-03-2022 To 23-03-2022

COORDINATOR

DIRECTOR



मिट्स जैव प्रौद्योगिकी संस्थान  
**MITS SCHOOL OF BIOTECHNOLOGY**  
2(P), INFOCITY, PATIA, BHUBANESWAR-751024



## *Certificate*

The MITS School of Biotechnology hereby certifies that

**SUBRAT KUMAR SAHOO**  
BCA-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**NATURAL LANGUAGE PROCESSING**  
07-03-2022 To 23-03-2022

COORDINATOR

DIRECTOR



मिट्स जैव प्रौद्योगिकी संस्थान  
**MITS SCHOOL OF BIOTECHNOLOGY**  
2(P), INFOCITY, PATIA, BHUBANESWAR-751024



## *Certificate*

The MITS School of Biotechnology hereby certifies that

**DIKSHA CHOUDHARY**  
BCA-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**NATURAL LANGUAGE PROCESSING**  
07-03-2022 To 23-03-2022

COORDINATOR

DIRECTOR





मिड्स जैव प्रौद्योगिकी संस्थान  
**MITS SCHOOL OF BIOTECHNOLOGY**  
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## *Certificate*

The MITS School of Biotechnology hereby certifies that

**NIRUPAMA SWAIN**  
BCA-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**NATURAL LANGUAGE PROCESSING**  
07-03-2022 To 23-03-2022

COORDINATOR

DIRECTOR



Date: 04-03-2022

## CIRCULAR




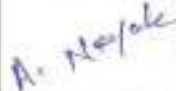
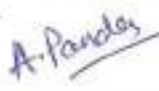

It is hereby informed to all final/pre-final year students of BSc-Biotechnology that the Department of Biotechnology of this institute is conducting a Two Week Add-On Program on **HANDS-ON MASTERY OF RT-PCR** from **16-03-2022** to **04-04-2022**. Interested students shall register their names at the office of the coordinator on or before 4 PM, 12-03-2022.

**Venue of the Programme** : Conference Hall, MITS School of Biotechnology.

**Coordinator** : **Dr. Smaranika Sahoo**  
Asst. Professor  
Department of Biotechnology  
MITS School of Biotechnology

  
**DIRECTOR**  
MITS School of Biotechnology  
Bhubaneswar

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CE: For information					

## REGISTRATION FORM

Name.....

Course.....Yr(1/2/3)

Roll No.....

Institution.....

Address for Communication:

Mobile.....

Email.....

Signature

Application to be submitted online in the above format along with the scanned copy of the registration form.

Last Date of Registration: 14.03.2022

Address for Communication

**Prof. Siddhartha Parida**  
Coordinator  
Associate Professor  
Contact: +91-9437089337

**Chief Patron**  
**Er. Sriram Panda**  
Chief Executive  
MITS Group

**Patron**  
**Dr. G.K. Panda**  
Director  
MITS School of Biotechnology

**Convenor**  
**Dr. Mousumi Mishra**  
Asst. Prof.  
Dept. of Biotechnology

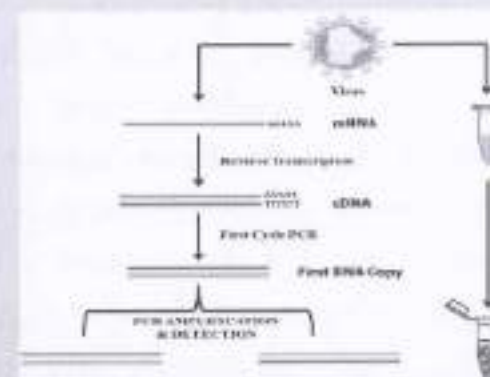
**Coordinator**  
**Prof. Siddhartha Parida**  
Associate Professor  
Dept. of Biotechnology

**Advisory Committee**  
**Dr. Tarini Charan Kar**  
Dept. of Biotechnology

**Mr. S. Satrusallya**  
Dept. of Chemistry

**Ms. Aishwarya Sarangi**  
Dept. of Biotechnology

## A TWO-WEEK ADD-ON PROGRAM ON



## HANDS-ON MASTERY OF RT-PCR

Program Schedule

16-03-2022 To 04-04-2022



Organized By:

**मिट्स जैव प्रौद्योगिकी संस्थान**  
**MITS SCHOOL OF BIOTECHNOLOGY**

Venue:

2(P), Infocity, Patia  
Bhubaneswar-751024 (Odisha)  
Website: [msb.ac.in](http://msb.ac.in)  
Email: [principal@msb.ac.in](mailto:principal@msb.ac.in)

## About College

Consistently ranking as the best institute in the eastern part of India, MITS School of Biotechnology (MSB) is a self financing professional organisation that was founded in 2003. The faculty consists of having qualification of PhD, M.Tech as well as experience in both Academics and industrial research, so as the student graduates, who are equally impressive mostly working in leading industries of Biotechnology, Pharma and IT. MSB is considered to be most selective, accepting, growing and proven institute under Utkal University. The institute is located at the prime location of Infocity, Bhubaneswar. This prestigious institute includes popular programs of Biotechnology, Applied Micro Biology and Computer Science.

## Courses Offered at MSB

BCA	- 3 Years
B.Sc Biotechnology	- 3 Years
M.Sc Biotechnology	- 2 Years
M.Sc App. Microbiology	- 2 Years

## About Programme

The "Hands-On Mastery of RT-PCR" program is an extensive and comprehensive training course designed to equip participants with the skills and knowledge necessary to become proficient in Reverse Transcription Polymerase Chain Reaction (RT-PCR). This program is suitable for both beginners with limited prior experience and individuals looking to deepen their expertise in RT-PCR techniques. This program equips participants with a valuable skill set that can be applied in various research, clinical, and diagnostic settings. It empowers individuals to contribute to advancements in molecular biology and healthcare.



## Objective of the Programme

The main objective of the program has five verticals: Understand the fundamental principles of RT-PCR, Master the entire RT-PCR workflow, from sample preparation to data analysis, Develop practical skills in RT-PCR technique execution, Learn how to troubleshoot common issues in RT-PCR experiments, Gain the ability to analyze and interpret RT-PCR data effectively.



Resource Person

**Dr. S N Patel**

Asst. Prof Department of Biotechnology  
MSB, Bhubaneswar



# मिटस जैव प्रौद्योगिकी संस्थान MITS SCHOOL OF BIOTECHNOLOGY

Date: 15-03-2022

## REGISTERED STUDENT LIST

Name of the Programme: A Two Week Add-On Program on  
HANDS-ON MASTERY OF RT-PCR  
16-03-2022 to 04-04-2022

SN	Reg. No	Name of the Student	Year Branch	Signature
1	Y22UB01	ABHIPSA BEHERA	3 <sup>rd</sup> Year BSc BT	Abhipsa Behera
2	Y22UB02	ABHISHEK AMAN KUMAR	3 <sup>rd</sup> Year BSc BT	Abhishek A. Kumar
3	Y22UB03	ABINASH HOTA	3 <sup>rd</sup> Year BSc BT	Abinash Hota
4	Y22UB04	BAIBHAV SISUGOSWAMI	3 <sup>rd</sup> Year BSc BT	Baibhav Sisugoswami
5	Y22UB05	BHUPESH KUMAR DAS	3 <sup>rd</sup> Year BSc BT	Bhupesh Kumar Das
6	Y22UB06	BIDYASHREE PATTNAIK	3 <sup>rd</sup> Year BSc BT	Bisakha Rout
7	Y22UB07	BISAKHA ROUT	3 <sup>rd</sup> Year BSc BT	Bidyashree Pattnaik
8	Y22UB08	BISWA PRANGYA KHATOI	3 <sup>rd</sup> Year BSc BT	Biswa Prangya Khato
9	Y22UB09	BISWASHREE DEBATA	3 <sup>rd</sup> Year BSc BT	Biswashree Debata
10	Y22UB10	CHANDRAMA KUMARI	3 <sup>rd</sup> Year BSc BT	Chandrama Kumari
11	Y22UB11	CHINMAYA BEHERA	3 <sup>rd</sup> Year BSc BT	Chinmaya Behera
12	Y22UB12	CHIRANJEEB ROUTRAY	3 <sup>rd</sup> Year BSc BT	Chiranjeeb Routray
13	Y22UB13	D JHANSI RANI	3 <sup>rd</sup> Year BSc BT	D Jhansi Rani
14	Y22UB14	DEBAJYOTI DAS	3 <sup>rd</sup> Year BSc BT	Debjyoti Das
15	Y22UB15	DEBASHREE DAS	3 <sup>rd</sup> Year BSc BT	Debashree Das
16	Y22UB16	DEEPTIDIPSIKHA SAHOO	3 <sup>rd</sup> Year BSc BT	Deeptidipsikha Sahoo
17	Y22UB17	DIBYANSU KUMAR JENA	3 <sup>rd</sup> Year BSc BT	Dibyansu Kumar Jena
18	Y22UB18	HAJRA BIBI	3 <sup>rd</sup> Year BSc BT	Hajra Bibi
19	Y22UB19	KRISHNA KASTURIKA BHOL	3 <sup>rd</sup> Year BSc BT	Krishna Kasturika Bhol
20	Y22UB20	LOPAMUDRA SINGH	3 <sup>rd</sup> Year BSc BT	Lopamudra Singh
21	Y22UB21	MANISA DAS	3 <sup>rd</sup> Year BSc BT	Manisa Das
22	Y22UB22	MINAKSHI KAR	3 <sup>rd</sup> Year BSc BT	Minakshi Kar
23	Y22UB23	OMM PATI	3 <sup>rd</sup> Year BSc BT	Omm Pati
24	Y22UB24	PRAGYAN PARAMITA SAHOO	3 <sup>rd</sup> Year BSc BT	Pragyan P. Sahoo
25	Y22UB25	PRANNAY KUMAR BEHERA	3 <sup>rd</sup> Year BSc BT	Prannay Kumar Behera
26	Y22UB26	PRATIBHA PANDA	3 <sup>rd</sup> Year BSc BT	Pratibha Panda
27	Y22UB27	PREETI PRIYANKA PUROHIT	3 <sup>rd</sup> Year BSc BT	Preeti P Purohit

Pg 1 of 2

28	Y22UB28	PRITI PRIYADARSHINI SAHOO	3 <sup>rd</sup> Year BSc BT	Priti Priyadarshini Sahoo
29	Y22UB29	PRIYAMBADA SWAIN	3 <sup>rd</sup> Year BSc BT	Priyambada Swain
30	Y22UB30	PRIYANKA SAMAL	3 <sup>rd</sup> Year BSc BT	Priyanka Samal
31	Y22UB31	PUSHPANJALI SINGH	3 <sup>rd</sup> Year BSc BT	Pushpanjali Singh
32	Y22UB32	RASHMI RANJAN BABOO	3 <sup>rd</sup> Year BSc BT	Rashmi Ranjan Baboo
33	Y22UB33	RITUPURNA PAIKARAY	3 <sup>rd</sup> Year BSc BT	Ritupurna Paikaray
34	Y22UB34	ROJALIN JENA	3 <sup>rd</sup> Year BSc BT	Rojalin Jena
35	Y22UB35	RUTUPARNA SHA	3 <sup>rd</sup> Year BSc BT	Rutuparna Sha
36	Y22UB36	SAI CHANDAN SAHOO	3 <sup>rd</sup> Year BSc BT	Sai Chandan Sahoo
37	Y22UB37	SAI SAMIKSHYA SAHU	3 <sup>rd</sup> Year BSc BT	Sai Samikshya Sahoo
38	Y22UB38	SAISNIGDHA NAYAK	3 <sup>rd</sup> Year BSc BT	Saiswarupa Nayak
39	Y22UB39	SAISWARUPA NAYAK	3 <sup>rd</sup> Year BSc BT	Saiswarupa Nayak
40	Y22UB40	SMITA MISHRA	3 <sup>rd</sup> Year BSc BT	Smita Mishra
41	Y22UB41	SMITA RANI BISWAL	3 <sup>rd</sup> Year BSc BT	Smita Rani Biswal
42	Y22UB42	SOUMYA DARSHAN PUHAN	3 <sup>rd</sup> Year BSc BT	Soumya Darshan Puhan
43	Y22UB43	SRADHA SUMAN MOHANTY	3 <sup>rd</sup> Year BSc BT	Sradha Suman Mohanty
44	Y22UB44	SRESHTHA SENGUPTA	3 <sup>rd</sup> Year BSc BT	Sreshtha Sengupta
45	Y22UB45	SRITAM KUMAR DASH	3 <sup>rd</sup> Year BSc BT	Sritam Kumar Dash
46	Y22UB46	SWATI SUMAN MISHRA	3 <sup>rd</sup> Year BSc BT	Swati Suman Mishra
47	Y22UB47	SWETALINA PRIYADARSINI	3 <sup>rd</sup> Year BSc BT	Swetalina Priyadarsini
48	Y22UB48	TAPASWINI SAMANTARAY	3 <sup>rd</sup> Year BSc BT	Tapaswini Samantaray
49	Y22UB49	UPASANA NAYAK	3 <sup>rd</sup> Year BSc BT	Upasana Nayak
50	Y22UB50	ZAHRA PARWEZ	3 <sup>rd</sup> Year BSc BT	Zahra Parwez

Smaranika Sahu  
COORDINATOR

  
HOD

  
DIRECTOR  
Director  
MITS School of Biotechnology  
Bhubaneswar

Date: 16-03-2022

### REGISTERED STUDENT LIST

Name of the Programme: A Two Week Add-On Program on  
**HANDS-ON MASTERY OF RT-PCR**  
16-03-2022 to 04-04-2022

SN	Reg. No	Name of the Student	Year Branch	Signature
51	Y22UB51	AFREEN JAHAN	3 <sup>rd</sup> Year BSc BT	Afreen Jahan
52	Y22UB52	AKANKSHYA RANI DASH	3 <sup>rd</sup> Year BSc BT	Akankshya Rani Dash
53	Y22UB53	ALISHA BEHURA	3 <sup>rd</sup> Year BSc BT	Alisha Behura
54	Y22UB54	AMARJIT GIRI	3 <sup>rd</sup> Year BSc BT	Amarjit Giri
55	Y22UB55	ANANYA PANJA	3 <sup>rd</sup> Year BSc BT	Ananya Panja
56	Y22UB56	ANKITA ANURADHA SAMAL	3 <sup>rd</sup> Year BSc BT	Ankita Anuradha Samal
57	Y22UB57	ANKITA MISHRA	3 <sup>rd</sup> Year BSc BT	Ankita Mishra
58	Y22UB58	ANKITA MOHANTY	3 <sup>rd</sup> Year BSc BT	Ankita Mohanty
59	Y22UB59	ANKITA PRIYADARSHANI ROUT	3 <sup>rd</sup> Year BSc BT	Ankita Priyadarshani Rout
60	Y22UB60	ANKITA ROUT	3 <sup>rd</sup> Year BSc BT	Ankita Rout
61	Y22UB61	ANSHUMAN DASH	3 <sup>rd</sup> Year BSc BT	Anshuman Dash
62	Y22UB62	ANUROOPA SAHOO	3 <sup>rd</sup> Year BSc BT	Anuroopa Sahoo
63	Y22UB63	ARUSMITA DAS	3 <sup>rd</sup> Year BSc BT	Arusmita Das
64	Y22UB64	AYUSHI DAS	3 <sup>rd</sup> Year BSc BT	Ayushi Das
65	Y22UB65	B ANAJELINA	3 <sup>rd</sup> Year BSc BT	B. Anajelina
66	Y22UB66	BADAL KUMAR SAHOO	3 <sup>rd</sup> Year BSc BT	Badal K. Sahoo
67	Y22UB67	HAREKRUSHNA DAS	3 <sup>rd</sup> Year BSc BT	Harekrushna Das
68	Y22UB68	HITANSHU MOHARANA	3 <sup>rd</sup> Year BSc BT	Hitanshu Moharana
69	Y22UB69	JASMIN VIMAL	3 <sup>rd</sup> Year BSc BT	Jasmin Vimal
70	Y22UB70	JAYA JAYSUDHA	3 <sup>rd</sup> Year BSc BT	Jaya Jaysudha
71	Y22UB71	JAYSHREE DAS	3 <sup>rd</sup> Year BSc BT	Jayashree Das
72	Y22UB72	KASHISH AFREEN	3 <sup>rd</sup> Year BSc BT	Kashish Afreen
73	Y22UB73	MONALISA NAYAK	3 <sup>rd</sup> Year BSc BT	Monalisa Nayak
74	Y22UB74	MONALISA PARIDA	3 <sup>rd</sup> Year BSc BT	Monalisa Parida
75	Y22UB75	MOUSUMI PRYADARSANI SETHY	3 <sup>rd</sup> Year BSc BT	Mousumi Priyadarshani Sethy
76	Y22UB76	PAYAL CHOUDHURY	3 <sup>rd</sup> Year BSc BT	Payal Choudhury
77	Y22UB77	PAYAL TRIPATHY	3 <sup>rd</sup> Year BSc BT	Payal Tripathy

Pg 1 of 2

78	Y22UB78	PHOEBE MARGARET	3 <sup>rd</sup> Year BSc BT	Phoebe Margaret
79	Y22UB79	PIYUSH MOHAPATRA	3 <sup>rd</sup> Year BSc BT	Piyush Mohapatra
80	Y22UB80	PRADYUMNA PANDA	3 <sup>rd</sup> Year BSc BT	Pradyumna Panda
81	Y22UB81	PRAGATI SWAIN	3 <sup>rd</sup> Year BSc BT	Pragati Swain
82	Y22UB82	PRAGYAN PARAMITA SETHI	3 <sup>rd</sup> Year BSc BT	Pragyan Paramita Sethi
83	Y22UB83	PRINCE KUMAR BEHERA	3 <sup>rd</sup> Year BSc BT	Prince Kumar Behera
84	Y22UB84	SAKSHYAMA PAIKARAY	3 <sup>rd</sup> Year BSc BT	Sakshyama Paikaray
85	Y22UB85	SAMYAK KANJILAL	3 <sup>rd</sup> Year BSc BT	Samyak Kanjilal
86	Y22UB86	SANDEEP KUMAR PALAI	3 <sup>rd</sup> Year BSc BT	Sandeep Kumar Palai
87	Y22UB87	SANDEEP KUMAR PANDA	3 <sup>rd</sup> Year BSc BT	Sandeep K. Panda
88	Y22UB88	SATABDI BEHERA	3 <sup>rd</sup> Year BSc BT	Satabdi Behera
89	Y22UB89	SATAKSHI SATAPATHY	3 <sup>rd</sup> Year BSc BT	Satakshi Satapathy
90	Y22UB90	SATWIK SHUBHAM	3 <sup>rd</sup> Year BSc BT	Satwik Shubham
91	Y22UB91	SHIBANI MOHANTY	3 <sup>rd</sup> Year BSc BT	Shibani Mohanty
92	Y22UB92	SHIBASHISH ABHIJIT SAHU	3 <sup>rd</sup> Year BSc BT	Shibashish Abhijit Sahu
93	Y22UB93	SHOMYA RANJAN MOHAPATRA	3 <sup>rd</sup> Year BSc BT	Shomya Ranjan Mohapatra
94	Y22UB94	SHREYOSÉE CHATTERJEE	3 <sup>rd</sup> Year BSc BT	Shreyosée Chatterjee
95	Y22UB95	SIBASISH SARANGI	3 <sup>rd</sup> Year BSc BT	Sibasish Sarangi
96	Y22UB96	SOFIA SATAPATHY	3 <sup>rd</sup> Year BSc BT	Sofia Satapathy
97	Y22UB97	SOMPREETI PAUL	3 <sup>rd</sup> Year BSc BT	Sompreeti Paul
98	Y22UB98	SONALI BARIK	3 <sup>rd</sup> Year BSc BT	Sonali Barik
99	Y22UB99	SUBHAJYOTI LENKA	3 <sup>rd</sup> Year BSc BT	Subhajyoti Lenka
100	Y22UB100	SUBHALAXMI MALL	3 <sup>rd</sup> Year BSc BT	Subhalaxmi Mall
101	Y22UB101	SUBHASHREE SWAIN	3 <sup>rd</sup> Year BSc BT	Subhashree Swain
102	Y22UB102	SUDESHNA PATRA	3 <sup>rd</sup> Year BSc BT	Sudeshna Patra
103	Y22UB103	SUMAN SOUVAGYA	3 <sup>rd</sup> Year BSc BT	Suman Souvagya
104	Y22UB104	SUPRIYA MOHANTY	3 <sup>rd</sup> Year BSc BT	Supriya Mohanty
105	Y22UB105	SURABHI KUMARI	3 <sup>rd</sup> Year BSc BT	Surabhi Kumari

Smaranika Sahu  
COORDINATOR

  
HOD

  
DIRECTOR  
Director  
MITS School of Biotechnology  
Bhubaneswar



## COURSE SCHEDULE

Name of the Program: A Two Week Add-On Program on **HANDS-ON MASTERY OF RT-PCR**  
16-03-2022 To 04-04-2022

SN	Date	Topic	Resource Person
1	16-03-2022	Introduction to Molecular Biology and PCR	Dr. S N Patel
2	17-03-2022	Laboratory Safety and Equipment Orientation & RT-PCR Reagents and Materials	Dr. S N Patel
3	18-03-2022	Primer Design and Target Selection	Dr. S N Patel
4	21-03-2022	RNA Extraction and cDNA Synthesis	Dr. S N Patel
5	22-03-2022	RT-PCR Master Mix Preparation	Dr. S N Patel
6	23-03-2022	Running RT-PCR Experiments.	Dr. S N Patel
7	24-03-2022	Data Collection and Analysis.	Dr. S N Patel
8	25-03-2022	Gel Electrophoresis and Melting Curve Analysis.	Dr. S N Patel
9	26-03-2022	Data Interpretation and Reporting.	Dr. S N Patel
10	28-03-2022	Digital PCR and Its Advantages.	Dr. S N Patel
11	29-03-2022	RT-PCR for Gene Expression Profiling & Clinical Diagnostics with RT-PCR.	Dr. S N Patel
12	30-03-2022	Recent Advances and Future Trends.	Dr. S N Patel
13	02-04-2022	Hands On Session	Dr. S N Patel
14	04-04-2022	Hands On Session	Dr. S N Patel

S. Lalita  
COORDINATOR

  
HOD

  
Director  
MITS School of Biotechnology  
DIRECTORwar



## PROGRAM REPORT

05-04-2022

**Name of the Event:** A Two Week Add-On Program on **HANDS-ON MASTERY OF RT-PCR**  
**Date:** 16-03-2022 To 02-04-2022

**Resource Person:** Dr. S N Patel  
Assoc. Professor,  
Dept. of Biotechnology, MSB, Bhubaneswar.  
Contact Number: 7735266465

**Coordinator:** **Dr. Smaranika Sahoo**  
Asst. Professor,  
Dept. of Biotechnology,  
MSB, Bhubaneswar

**Number of students attended:** 105

**Venue:** Seminar Hall, MITS School of Biotechnology.

MITS school of Biotechnology, Bhubaneswar, organized a two week add-on program on **HANDS-ON MASTERY OF RT-PCR** for BSc-Biotechnology students by the resource person Dr. S N Patel. This program is an extensive and comprehensive training course designed to equip participants with the skills and knowledge necessary to become proficient in Reverse Transcription Polymerase Chain Reaction (RT-PCR). Totally 105 students participated in this training program and after the completion of the program they were able to understand the following objectives and learning outcomes.

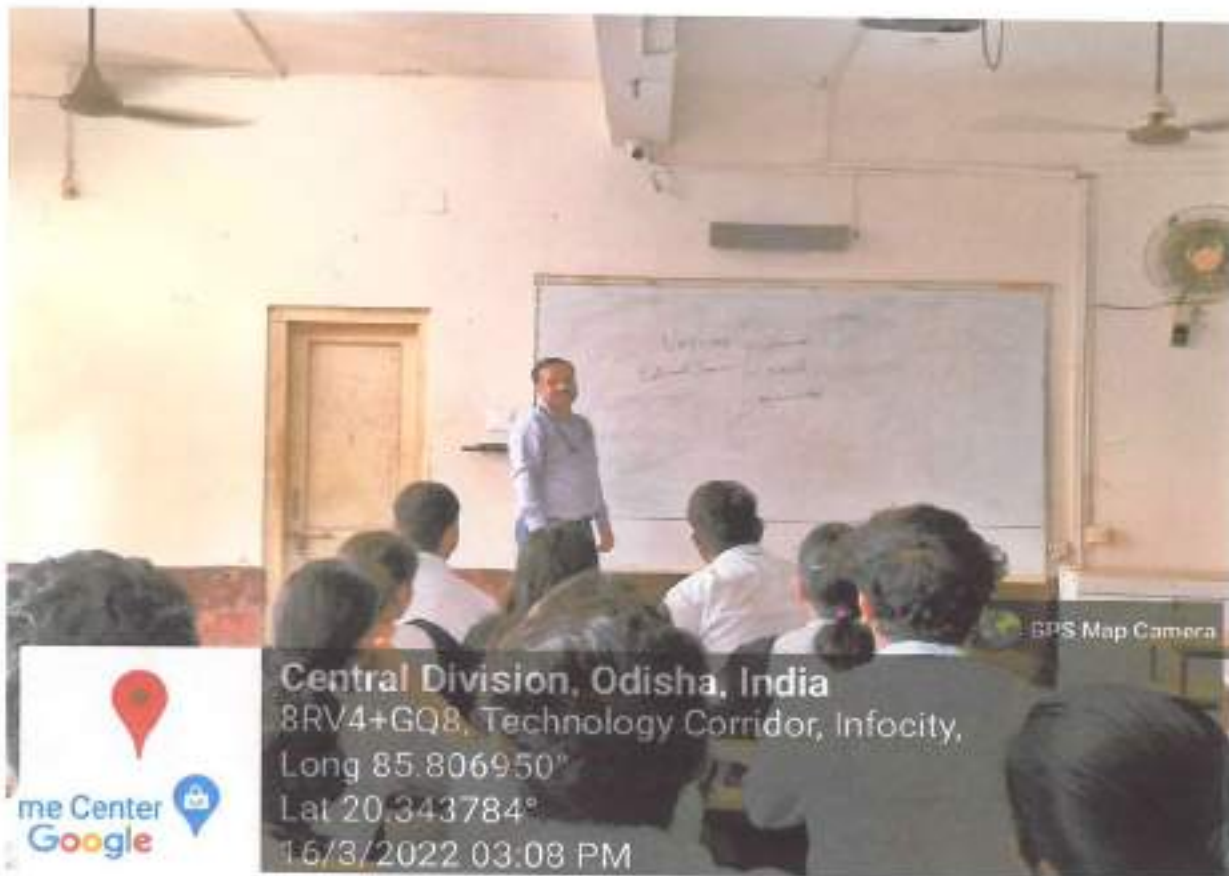
### Objectives:

1. Understand the fundamental principles of RT-PCR.
2. Master the entire RT-PCR workflow, from sample preparation to data analysis.
3. Develop practical skills in RT-PCR technique execution.
4. Learn how to troubleshoot common issues in RT-PCR experiments.
5. Gain the ability to analyse and interpret RT-PCR data effectively.

### Learning Outcomes:

1. Proficiency in conducting RT-PCR experiments from sample preparation to data analysis.

2. The ability to design specific primers for target genes.
3. Strong troubleshooting skills to resolve common RT-PCR issues.
4. Competence in analysing and interpreting RT-PCR data accurately.
5. Knowledge of advanced RT-PCR applications and emerging trends.



A Two Week Add-On Program on **HANDS-ON MASTERY OF RT-PCR**,  
16-03-2022 To 04-04-2022, Dr. S N Patel

This course was very useful to the students of BSc-Biotechnology and their feedback is positive. The management and Professor (Dr.) G. K. Panda, Director of MSB thanked to the resource person and participants for making the programme successful.

S. Kalam  
COORDINATOR

*[Signature]*  
HOD

*[Signature]*  
DIRECTOR  
Director  
MITS School of Biotechnology  
Bhubaneswar



मिड्स जैव प्रौद्योगिकी संस्थान  
**MITS SCHOOL OF BIOTECHNOLOGY**

2(P), INFOCITY, PATIA, BHUBANESWAR-751024



# *Certificate*

The MITS School of Biotechnology hereby certifies that

**BISAKHA ROUT**  
B.Sc-BT-3rd Year

has successfully completed  
A Two Week Add-On Programme On  
**HANDS-ON MASTERY OF RT-PCR**  
16-03-2022 To 04-04-2022

*S. Sahu*  
\_\_\_\_\_  
**COORDINATOR**

*[Signature]*  
\_\_\_\_\_  
**DIRECTOR**



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**MITS SCHOOL OF BIOTECHNOLOGY**  
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## *Certificate*

The MITS School of Biotechnology hereby certifies that

**ABINASH HOTA**  
B.Sc-BT-3rd Year

has successfully completed  
A Two Week Add-On Programme On  
**HANDS-ON MASTERY OF RT-PCR**  
16-03-2022 To 04-04-2022

*B. Sahu*  
\_\_\_\_\_  
**COORDINATOR**

*[Signature]*  
\_\_\_\_\_  
**DIRECTOR**



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**MITS SCHOOL OF BIOTECHNOLOGY**

2(P), INFOCITY, PATIA, BHUBANESWAR-751024



# Certificate

The MITS School of Biotechnology hereby certifies that

**D JHANSI RANI**  
B.Sc-BT-3rd Year

has successfully completed  
A Two Week Add-On Programme On  
**HANDS-ON MASTERY OF RT-PCR**  
16-03-2022 To 04-04-2022

*L. Sahu*

COORDINATOR

DIRECTOR



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**MITS SCHOOL OF BIOTECHNOLOGY**  
2(P), INFOCITY, PATIA, BHUBANESWAR-751024



## *Certificate*

The MITS School of Biotechnology hereby certifies that

**ROJALIN JENA**  
B.Sc-BT-3rd Year

has successfully completed  
A Two Week Add-On Programme On  
**HANDS-ON MASTERY OF RT-PCR**  
16-03-2022 To 04-04-2022

*S. Sahu*  
\_\_\_\_\_  
COORDINATOR

*C. Patel*  
\_\_\_\_\_  
DIRECTOR



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**MITS SCHOOL OF BIOTECHNOLOGY**  
2(P), INFOCITY, PATIA, BHUBANESWAR-751024



## *Certificate*

The MITS School of Biotechnology hereby certifies that

**SMITA MISHRA**  
B.Sc-BT-3rd Year

has successfully completed  
A Two Week Add-On Programme On  
**HANDS-ON MASTERY OF RT-PCR**  
16-03-2022 To 04-04-2022

*S. Sahu*

COORDINATOR

DIRECTOR





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**MITS SCHOOL OF BIOTECHNOLOGY**  
2(P), INFOCITY, PATIA, BHUBANESWAR-751024



## *Certificate*

The MITS School of Biotechnology hereby certifies that

**RASMI RANJAN BABOO**  
B.Sc-BT-3rd Year

has successfully completed  
A Two Week Add-On Programme On  
**HANDS-ON MASTERY OF RT-PCR**  
16-03-2022 To 04-04-2022

*l. Sahu*

COORDINATOR

*Cepre*

DIRECTOR



मिड्स जैव प्रौद्योगिकी संस्थान  
**MITS SCHOOL OF BIOTECHNOLOGY**

2(P), INFOCITY, PATIA, BHUBANESWAR-751024



## *Certificate*

The MITS School of Biotechnology hereby certifies that

**PUSHPANJALI SINGH**

**B.Sc-BT-3rd Year**

has successfully completed  
A Two Week Add-On Programme On  
**HANDS-ON MASTERY OF RT-PCR**  
16-03-2022 To 04-04-2022

*S. Sahu*

COORDINATOR

*Ceyce*

DIRECTOR



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**MITS SCHOOL OF BIOTECHNOLOGY**  
2(P), INFOCITY, PATIA, BHUBANESWAR-751024



## *Certificate*

The MITS School of Biotechnology hereby certifies that

**UPASANA NAYAK**  
B.Sc-BT-3rd Year

has successfully completed  
A Two Week Add-On Programme On  
**HANDS-ON MASTERY OF RT-PCR**  
16-03-2022 To 04-04-2022

*S. Sahu*

COORDINATOR

*Capal*

DIRECTOR



मिड्स जैव प्रौद्योगिकी संस्थान  
**MITS SCHOOL OF BIOTECHNOLOGY**  
2(P), INFOCITY, PATIA, BHUBANESWAR-751024



## *Certificate*

The MITS School of Biotechnology hereby certifies that

**ALISHA BEHURA**  
B.Sc-BT-3rd Year

has successfully completed  
A Two Week Add-On Programme On  
**HANDS-ON MASTERY OF RT-PCR**  
16-03-2022 To 04-04-2022

*S. Sahu*  
\_\_\_\_\_  
COORDINATOR

*C. Saha*  
\_\_\_\_\_  
DIRECTOR



मिट्स जैव प्रौद्योगिकी संस्थान  
**MITS SCHOOL OF BIOTECHNOLOGY**

2(P), INFOCITY, PATIA, BHUBANESWAR-751024



## *Certificate*

The MITS School of Biotechnology hereby certifies that

**JASMIN VIMAL**  
B.Sc-BT-3rd Year

has successfully completed  
A Two Week Add-On Programme On  
**HANDS-ON MASTERY OF RT-PCR**  
16-03-2022 To 04-04-2022

*I. Sahu*  
\_\_\_\_\_  
COORDINATOR

*C. S. Saha*  
\_\_\_\_\_  
DIRECTOR

## CIRCULAR

It is hereby informed to all final/pre-final year students of BSc-Biotechnology that the Department of Biotechnology of this institute is conducting a Two Weeks Add-On Program on **RELATIONSHIP ON FOOD HABITS AND LIFESTYLE DISEASES** from 01-12-2021 to 17-12-2021. Interested students shall register their names at the office of the coordinator on or before 4 PM, 26-11-2021.

**Venue of the Programme** : Conference Hall, MITS School of Biotechnology.

**Coordinator** : **Dr. Smaranika Sahu**  
Asst. Professor  
Department of Biotechnology  
MITS School of Biotechnology




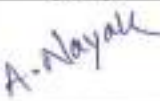
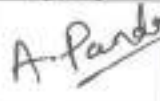



**DIRECTOR**

Director

MITS School of Biotechnology  
Bhubaneswar

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CE: For information					

## REGISTRATION FORM

Name.....

Course.....Yr(1/2/3)

Roll No.....

Institution.....

Address for Communication:

Mobile.....

Email.....

Signature

Application to be submitted online in the above format along with the scanned copy of the registration form.

Last Date of Registration: 26-11-2021

Email: smaranikasahu1@gmail.com

Address for Communication

**Dr. Smaranika Sahu**

Coordinator, Asst Professor

Contact: +91-8763177859

Chief Patron

**Er. Sriram Panda**

Chief Executive  
MITS Group

Patron

**Dr. G.K. Panda**

Director  
MITS School of Biotechnology

Convenor

**Dr. Rashmi Ranjan Mishra**

Head  
Dept. of Biotechnology

Coordinator

**Dr. Smaranika Sahu**

Asst Professor  
Dept. of Biotechnology

Advisory Committee

**Dr. Manisha Patnaik**

Dept. of Biotechnology

**Mr. S. Satrusallya**

Dept. of Chemistry

**Dr. Swati Mishra**

Dept. of Biotechnology

**A TWO-WEEK ADD-ON  
PROGRAM  
ON**



**RELATIONSHIP ON FOOD HABITS  
AND LIFESTYLE DISEASES**

Program Schedule

01-12-2021 to 17-12-2021



Organized By:

**मिट्स जैव प्रौद्योगिकी संस्थान  
MITS SCHOOL OF BIOTECHNOLOGY**

Venue:

2(P), Infocity, Patia  
Bhubaneswar-751024 (Odisha)

Website: msb.ac.in

Email: principal@msb.ac.in

## About College

Consistently ranking as the best institute in the eastern part of India, MITS School of Biotechnology (MSB) is a self financing professional organisation that was founded in 2003. The faculty consists of having qualification of PhD, M.Tech as well as experience in both Academics and industrial research, so as the student graduates, who are equally impressive mostly working in leading industries of Biotechnology, Pharma and IT. MSB is considered to be most selective, accepting, growing and proven institute under Utkal University. The institute is located at the prime location of Infocity, Bhubaneswar. This prestigious institute includes popular programs of Biotechnology, Applied Micro Biology and Computer Science.

## Courses Offered at MSB

BCA	- 3 Years
B.Sc Biotechnology	- 3 Years
M.Sc Biotechnology	- 2 Years
M.Sc App. Microbiology	- 2 Years

## About Programme

This curriculum is crafted to offer participants an in-depth insight into the intricate relationship between dietary preferences and the emergence of lifestyle-related ailments such as diabetes, heart disease, obesity, and hypertension. It endeavors to enhance their knowledge on how food choices play a pivotal role in influencing health outcomes. Through this program, attendees will gain valuable knowledge to navigate and make informed decisions regarding their diet for a healthier lifestyle.



## Objective of the Programme

This program is meticulously designed with three key objectives. Firstly, it aims to provide participants with a comprehensive understanding of the intricate link between diet and lifestyle diseases, shedding light on how food habits directly contribute to the development of conditions like diabetes, heart disease, and obesity.



Resource Person

**Ms. Barsha Samantaray**

Asst. Prof.

Department of Biotechnology MSB,  
Bhubaneswar



Date: 01-12-2021

### REGISTERED STUDENT LIST

Name of the Programme: Two Week Add-On program on **RELATIONSHIP ON FOOD HABITS AND LIFESTYLE DISEASES**

01-12-2021 to 17-12-2021

SN	Reg. No	Name of the Student	Year Branch	Signature
1	Y21UB01	ADITYA NARAYAN SAHOO	2nd Year BSc-BT	Aditya Narayan Sahoo
2	Y21UB02	AISWARYA SAHOO	2nd Year BSc-BT	Aiswarya Sahoo
3	Y21UB03	AISWARYA SWAIN	2nd Year BSc-BT	Aiswarya Swain
4	Y21UB04	ALOK KUMAR BEHERA	2nd Year BSc-BT	Alok Kumar behera
5	Y21UB05	AMISHA SAHU	2nd Year BSc-BT	Amisha Sahu
6	Y21UB06	ANINDYA MONDAL	2nd Year BSc-BT	Anindya Mondal
7	Y21UB07	ANJANEYA SAMANTARAY	2nd Year BSc-BT	Anjaneya Samantaray
8	Y21UB08	ANKITA GIRI	2nd Year BSc-BT	Ankita Giri
9	Y21UB09	ANKITA PRUSTY	2nd Year BSc-BT	Ankita Prusty
10	Y21UB10	ARCHANA KUMARI	2nd Year BSc-BT	Archana Kumari
11	Y21UB11	ASUTOSH MOHARANA	2nd Year BSc-BT	Asutosh Moharana
12	Y21UB12	BABITA MOHANTA	2nd Year BSc-BT	Babita Mohanta
13	Y21UB13	BHAGYODEV MALLIK	2nd Year BSc-BT	Bhagyodev mallik
14	Y21UB14	BIJAYALAXMI ROUT	2nd Year BSc-BT	Bijayalanmi Rout
15	Y21UB15	BISWAJIT MANTRI	2nd Year BSc-BT	Biswajit Mantri
16	Y21UB16	DEBASMITA SWAIN	2nd Year BSc-BT	Debasmita Swain
17	Y21UB17	DIBYANSU KANUNGO	2nd Year BSc-BT	Dibyansu Kanungo
18	Y21UB18	GAYATRI SWAIN	2nd Year BSc-BT	Gayatri Swain
19	Y21UB19	JAGAT YADAV	2nd Year BSc-BT	Jagat Yadav
20	Y21UB20	JAYASMIN PATRA	2nd Year BSc-BT	Jayasmin Patra
21	Y21UB21	KESHAB TRIPATHY	2nd Year BSc-BT	Keshab Tripathy
22	Y21UB22	KRISHNA SAHOO	2nd Year BSc-BT	Krishna Sahoo
23	Y21UB23	LALITA SWAIN	2nd Year BSc-BT	Lalita Swain
24	Y21UB24	LIPSA RANI PRADHAN	2nd Year BSc-BT	Lipsa Rani Pradhan
25	Y21UB25	MANAS NIRMALYA SAHOO	2nd Year BSc-BT	Manas Nirmalya Sahoo
26	Y21UB26	MANASWINI DAS	2nd Year BSc-BT	Manaswini Das

2.2

27	Y21UB27	MARMASPARSHI DAS	2nd Year BSc-BT	Marmasparshi Das
28	Y21UB28	MD. AAMIR KHAN	2nd Year BSc-BT	MD. Aamir Khan
29	Y21UB29	MEGHNA PATTANAİK	2nd Year BSc-BT	Meghna Pattanaik
30	Y21UB30	MITALI MADHUSMITA SWAIN	2nd Year BSc-BT	Mitali Madhusmita Swain
31	Y21UB31	MONALSA BEHERA	2nd Year BSc-BT	Monalsa Behera
32	Y21UB32	MUSKAN PARWEEN	2nd Year BSc-BT	Muskan Parween
33	Y21UB33	NAMRADIPA JENA	2nd Year BSc-BT	Namradipa Jena
34	Y21UB34	NANDINI CHAUHAN	2nd Year BSc-BT	Nandini Chauhan
35	Y21UB35	NEHA NAYAK	2nd Year BSc-BT	Neha Nayak
36	Y21UB36	NIBEDITA NANDY	2nd Year BSc-BT	Nibedita nandy
37	Y21UB37	NITISH KUMAR SAHOO	2nd Year BSc-BT	Nitish Kumar saho
38	Y21UB38	PARIDHI AGRAWAL	2nd Year BSc-BT	Paridhi Agrawal
39	Y21UB39	POOJA PRIYADARSINI BEHERA	2nd Year BSc-BT	Prachurya Mishra
40	Y21UB40	PRACHURYA MISHRA	2nd Year BSc-BT	Prachurya Mishra
41	Y21UB41	PRADYUMNA DAS	2nd Year BSc-BT	Pradyumna das
42	Y21UB42	PRAGNYA PRIYADARSANI KHETI	2nd Year BSc-BT	Prangya Priyadarsanikho
43	Y21UB43	PRATISHRUTI PRADHAN	2nd Year BSc-BT	Pratishruti pradhan
44	Y21UB44	PRITY SAMAL	2nd Year BSc-BT	Prity samal
45	Y21UB45	PRIYADARSHINEE SWAIN	2nd Year BSc-BT	Priyadarshinee Swain
46	Y21UB46	PRIYANKA MOHAPATRA	2nd Year BSc-BT	Priyanka Mohapatra
47	Y21UB47	PURBI RAY	2nd Year BSc-BT	Purbi Ray
48	Y21UB48	RAJLAXMI DILIP ROUT	2nd Year BSc-BT	Rajalaxmi dilip Rout
49	Y21UB49	RANI GOCHHAYAT	2nd Year BSc-BT	Rani Gochhayat
50	Y21UB50	RITUPARNA KHADIA	2nd Year BSc-BT	Rituparna Khadia
51	Y21UB51	SAIJYOTI SAHOO	2nd Year BSc-BT	Saijyoti Sahoo
52	Y21UB52	SANDIP SUBHANKAR NAYAK	2nd Year BSc-BT	Sandip Subhankar Nayak
53	Y21UB53	SANGITA SAHOO	2nd Year BSc-BT	Sangita Sahoo
54	Y21UB54	SHRABANI DASH	2nd Year BSc-BT	Shrabani Dash
55	Y21UB55	SHRUTI SWEETY GURIA	2nd Year BSc-BT	Shruti Sweety Guria
56	Y21UB56	SHRUTILIPI DAS	2nd Year BSc-BT	Shrutilipi Das
57	Y21UB57	SHWETA DAS	2nd Year BSc-BT	Shweta das

58	Y21UB58	SIDHI SIDHESWAR SAHOO	2nd Year BSc-BT	Sidhi Sidheswar Sahoo
59	Y21UB59	SMRUTISHREE ROUSTRAY	2nd Year BSc-BT	Smrutishree Roustray
60	Y21UB60	SONALI PARIDA	2nd Year BSc-BT	Sonali Parida
61	Y21UB61	SONIA SOREN	2nd Year BSc-BT	Sonia Soren
62	Y21UB62	SOUMYA RANJAN SWAIN	2nd Year BSc-BT	Soumya Ranjan Swain
63	Y21UB63	SRIMAN BRAJESWAR KHUNTIA	2nd Year BSc-BT	Sriman Ranjan Swain
64	Y21UB64	SUBHADRA MOHANTY	2nd Year BSc-BT	Subhadra Mohanty
65	Y21UB65	SUBHASHREE MOHAPATRA	2nd Year BSc-BT	Subhashree Mohan
66	Y21UB66	SUBHASHREE PADHY	2nd Year BSc-BT	Subhashree Padhy
67	Y21UB67	SUBHASHREE PRIYADARSHINE MANDHATA	2nd Year BSc-BT	Subhashree Priyadarshine Mandhata
68	Y21UB68	SUBHASMITA DASH	2nd Year BSc-BT	Subhasmita Dash
69	Y21UB69	SUCHISMITA MALLICK	2nd Year BSc-BT	Suchismita mallick
70	Y21UB70	SUMIT MONDAL	2nd Year BSc-BT	Sumit Mondal
71	Y21UB71	SUNITA RANI MOHAPATRA	2nd Year BSc-BT	Sunita Rani Mohapatra
72	Y21UB72	SUSHREE NOOPUR SAHOO	2nd Year BSc-BT	Sushree noopur mohapatra
73	Y21UB73	SUSIL BARAL	2nd Year BSc-BT	Susil Baral
74	Y21UB74	SUSMITA GHOSH	2nd Year BSc-BT	Susmita Ghosh
75	Y21UB75	SUVENDU NAYAK	2nd Year BSc-BT	Suvendu Nayak
76	Y21UB76	TANAVI SINGH	2nd Year BSc-BT	Tanavi Singh
77	Y21UB77	TANMESHA PANDA	2nd Year BSc-BT	Tanmesha Panda
78	Y21UB78	TAPASWINI PRADHAN	2nd Year BSc-BT	Tapaswini Pradhan
79	Y21UB79	YOJANAJYOTI PRADHAN	2nd Year BSc-BT	Yojanajyoti Pradhan

S. Saha  
COORDINATOR

  
HOD

  
DIRECTOR  
Director  
MITS School of Biotechnology  
Bhubaneswar



# मिटस जैव प्रौद्योगिकी संस्थान MITS SCHOOL OF BIOTECHNOLOGY

## COURSE SCHEDULE

**Name of the Program:** A Two Week Add-On Program on **RELATIONSHIP ON FOOD HABITS AND LIFESTYLE DISEASES**  
**01-12-2021 to 17-12-2021**

SN	Date	Topic	Resource Person
1	01-12-2021	Introduction to Lifestyle Diseases	Ms. Barsha Samantaray
2	02-12-2021	The Role of Diet	Ms. Barsha Samantaray
3	03-12-2021	Common Lifestyle Diseases	Ms. Barsha Samantaray
4	04-12-2021	The Impact on Public Health	Ms. Barsha Samantaray
5	06-12-2021	Meal Planning and Dietary Guidelines	Ms. Barsha Samantaray
6	07-12-2021	Cooking Demonstrations	Ms. Barsha Samantaray
7	08-12-2021	Reading Food Labels	Ms. Barsha Samantaray
8	09-12-2021	Physical Activity and Its Role	Ms. Barsha Samantaray
9	10-12-2021	Behaviour Change Strategies	Ms. Barsha Samantaray
10	11-12-2021	Cultural and Dietary Diversity	Ms. Barsha Samantaray
11	13-12-2021	Group Discussions and Case Studies	Ms. Barsha Samantaray
12	14-12-2021	Personalized Action Plans	Ms. Barsha Samantaray
13	15-12-2021	Hands On Session	Ms. Barsha Samantaray
14	16-12-2021	Hands On Session	Ms. Barsha Samantaray
15	17-12-2021	Hands On Session	Ms. Barsha Samantaray

*S. Saha*  
COORDINATOR

*[Signature]*  
HOD

*[Signature]*  
DIRECTOR  
Director  
MITS School of Biotechnology  
Bhubaneswar



## PROGRAM REPORT

18-12-2021

**Name of the Event:** A Two Week Add-On Program on **RELATIONSHIP ON FOOD HABITS AND LIFESTYLE DISEASES**

**Date:** 01-12-2021 to 17-12-2021

**Resource Person:** Ms. Barsha Samantaray

Lecturer,  
Dept. of Biotechnology, MSB, Bhubaneswar.  
Contact Number: 9113832211

**Coordinator:** Dr. Smaranika Sahu

Asst. Professor,  
Dept. of Biotechnology,  
MSB, Bhubaneswar

**Number of students attended:** 79

**Venue:** Conference Hall, MITS School of Biotechnology.

MITS school of Biotechnology, Bhubaneswar, organized a two week add-on program on **RELATIONSHIP ON FOOD HABITS AND LIFESTYLE DISEASES** for BSc-Biotechnology students by the resource person Ms. Barsha Samantaray. This program is designed to provide participants with a comprehensive understanding of how dietary choices can influence the development of lifestyle-related diseases, such as diabetes, heart disease, obesity, and hypertension. Totally 79 students participated in this training program and after the completion of the program they were able to understand the following objectives and learning outcomes.

### Objectives:

1. To Understand the Link between Diet and Lifestyle Diseases: Educate participants about how food habits directly influence the development of lifestyle diseases such as diabetes, heart disease, and obesity.
2. To Promote Healthy Eating: Encourage participants to make informed food choices and adopt healthier eating habits for disease prevention and overall well-being.
3. To Explore the Role of Physical Activity: Examine the synergistic effect of physical activity in the context of food habits for a balanced and healthy lifestyle.
4. To Raise Awareness of the Impact on Public Health: Highlight the broader societal implications of lifestyle diseases and their impact on healthcare systems.

### Learning Outcomes:

1. Participants will have a comprehensive understanding of the relationship between food habits and lifestyle diseases.
2. Participants will be knowledgeable about healthy eating guidelines and meal planning.
3. Participants will recognize the importance of physical activity in a balanced lifestyle.
4. Participants will be aware of the broader societal impact of lifestyle diseases.
5. Participants will have practical cooking skills and the ability to read food labels.



A Two Week Add-On Program on **RELATIONSHIP ON FOOD HABITS AND LIFESTYLE DISEASES**, 01-12-2021 to 17-12-2021, Lect. Barsha Samantaray

This course was very useful to the students of BSc-Biotechnology and their feedback is positive. The management and Professor (Dr.) G. K. Panda, Director of MSB thanked to the resource person and participants for making the programme successful.

*S. Sahu*  
COORDINATOR

*G. K. Panda*  
HOD

*G. K. Panda*  
DIRECTOR  
MITS School of Biotechnology  
Bhubaneswar



मिट्स जैव प्रौद्योगिकी संस्थान  
**MITS SCHOOL OF BIOTECHNOLOGY**

2(P), INFOCITY, PATIA, BHUBANESWAR-751024



## *Certificate*

The MITS School of Biotechnology hereby certifies that

**AISWARYA SAHOO**

B.Sc-BT-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**RELATIONSHIP ON FOOD HABITS AND LIFESTYLE DISEASES**  
01-12-2021 To 17-12-2021

*S. Sahu*

COORDINATOR

*[Signature]*

DIRECTOR



मिट्स जैव प्रौद्योगिकी संस्थान  
**MITS SCHOOL OF BIOTECHNOLOGY**  
2(P), INFOCITY, PATIA, BHUBANESWAR-751024



## *Certificate*

The MITS School of Biotechnology hereby certifies that

**JAGAT YADAV**  
B.Sc-BT-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**RELATIONSHIP ON FOOD HABITS AND LIFESTYLE DISEASES**  
01-12-2021 To 17-12-2021

*S. Sahu*

COORDINATOR

*Oppe*

DIRECTOR





मिट्स जैव प्रौद्योगिकी संस्थान  
**MITS SCHOOL OF BIOTECHNOLOGY**  
2(P), INFOCITY, PATIA, BHUBANESWAR-751024



## *Certificate*

The MITS School of Biotechnology hereby certifies that

**LIPSA RANI PRADHAN**  
B.Sc-BT-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**RELATIONSHIP ON FOOD HABITS AND LIFESTYLE DISEASES**  
01-12-2021 To 17-12-2021

*S. Sahu*

COORDINATOR

*C. S. Sahu*

DIRECTOR



मिट्स जैव प्रौद्योगिकी संस्थान  
**MITS SCHOOL OF BIOTECHNOLOGY**

2(P), INFOCITY, PATIA, BHUBANESWAR-751024



## Certificate

The MITS School of Biotechnology hereby certifies that

**LALITA SWAIN**  
B.Sc-BT-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**RELATIONSHIP ON FOOD HABITS AND LIFESTYLE DISEASES**  
01-12-2021 To 17-12-2021

*S. Sabu*

COORDINATOR

*Opal*

DIRECTOR



मिट्स जैव प्रौद्योगिकी संस्थान  
**MITS SCHOOL OF BIOTECHNOLOGY**  
2(P), INFOCITY, PATIA, BHUBANESWAR-751024



## *Certificate*

The MITS School of Biotechnology hereby certifies that

**BISWAJIT MANTRI**  
B.Sc-BT-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**RELATIONSHIP ON FOOD HABITS AND LIFESTYLE DISEASES**  
01-12-2021 To 17-12-2021

*S. Sahu*

COORDINATOR

*Opae*

DIRECTOR



मिट्स जैव प्रौद्योगिकी संस्थान  
**MITS SCHOOL OF BIOTECHNOLOGY**  
2(P), INFOCITY, PATIA, BHUBANESWAR-751024



## *Certificate*

The MITS School of Biotechnology hereby certifies that

**ARCHANA KUMARI**  
B.Sc-BT-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**RELATIONSHIP ON FOOD HABITS AND LIFESTYLE DISEASES**  
01-12-2021 To 17-12-2021

*S. Lahu*

COORDINATOR

DIRECTOR



मिट्स जैव प्रौद्योगिकी संस्थान  
**MITS SCHOOL OF BIOTECHNOLOGY**  
2(P), INFOCITY, PATIA, BHUBANESWAR-751024



## *Certificate*

The MITS School of Biotechnology hereby certifies that

**MD. AAMIR KHAN**  
B.Sc-BT-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**RELATIONSHIP ON FOOD HABITS AND LIFESTYLE DISEASES**  
01-12-2021 To 17-12-2021

*S. Babu*

COORDINATOR

DIRECTOR



मिड्स जैव प्रौद्योगिकी संस्थान  
**MITS SCHOOL OF BIOTECHNOLOGY**  
2(P), INFOCITY, PATIA, BHUBANESWAR-751024



## *Certificate*

The MITS School of Biotechnology hereby certifies that

**PARIDHI AGRAWAL**  
B.Sc-BT-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**RELATIONSHIP ON FOOD HABITS AND LIFESTYLE DISEASES**  
01-12-2021 To 17-12-2021

*S. Sahu*

COORDINATOR

DIRECTOR



मिट्स जैव प्रौद्योगिकी संस्थान  
**MITS SCHOOL OF BIOTECHNOLOGY**  
2(P), INFOCITY, PATIA, BHUBANESWAR-751024



## *Certificate*

The MITS School of Biotechnology hereby certifies that

**PRITY SAMAL**  
B.Sc-BT-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**RELATIONSHIP ON FOOD HABITS AND LIFESTYLE DISEASES**  
01-12-2021 To 17-12-2021

*L. Sahu*

COORDINATOR

*C. S. S.*

DIRECTOR



मिट्स जैव प्रौद्योगिकी संस्थान  
**MITS SCHOOL OF BIOTECHNOLOGY**

2(P), INFOCITY, PATIA, BHUBANESWAR-751024



## *Certificate*

The MITS School of Biotechnology hereby certifies that

**SANGITA SAHOO**  
B.Sc-BT-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**RELATIONSHIP ON FOOD HABITS AND LIFESTYLE DISEASES**  
01-12-2021 To 17-12-2021

*S. Sahu*

COORDINATOR

*C. S. Saha*

DIRECTOR





Date: 01-04-2022

## CIRCULAR




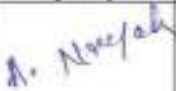
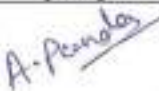
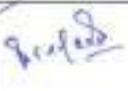
It is hereby informed to all final/pre-final year students of MSc-Biotechnology that the Department of Biotechnology of this institute is conducting a Two Week Add-On Program on **ARTIFICIAL INTELLIGENCE IN BIOTECHNOLOGICAL APPLICATIONS** from **11-04-2022** to **29-04-2022**. Interested students shall register their names at the office of the coordinator on or before 4 PM, 07-04-2022.

**Venue of the Programme** : Conference Hall, MITS School of Biotechnology.

**Coordinator** : **Dr. Mousumi Mishra**  
Asst. Professor  
Department of Biotechnology  
MITS School of Biotechnology

  
**DIRECTOR**  
MITS School of Biotechnology  
Bhubaneswar

Copy to:

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CE: For information					

## REGISTRATION FORM

Name.....

Course.....Yr(1/2/3)

Roll No.....

Institution.....

Address for Communication:

Mobile.....

Email.....

Signature

Application to be submitted online in the above format along with the scanned copy of the registration form.

Last Date of Registration: 08.04.2022

Email: [csethi.msb@gmail.com](mailto:csethi.msb@gmail.com)

Address for Communication

**Dr. Mousumi Mishra**  
Coordinator, Asst Professor  
Contact: +91-9937026755

**Chief Patron**  
**Er. Sriram Panda**  
Chief Executive  
MITS Group

**Patron**  
**Dr. G.K. Panda**  
Director  
MITS School of Biotechnology

**Convenor**  
**Dr. Smaranika Sahoo**  
Dept. of Biotechnology

**Coordinator**  
**Dr. Mousumi Mishra**  
Asst Professor  
Dept. of Biotechnology

**Advisory Committee**  
**Dr. Rashmi Ranjan Mishra**  
Dept. of Biotechnology

**Mr. S. Satrusallya**  
Dept. of Chemistry

**Dr. Monisha Patnaik**  
Dept. of Biotechnology

**A TWO-WEEK ADD-ON  
PROGRAM  
ON**



**ARTIFICIAL INTELLIGENCE IN  
BIOTECHNOLOGICAL  
APPLICATIONS**

Proram Schedule

11-04-2022 To 29-04-2022



Organized By:

**मिहस जैव प्रौद्योगिकी संस्थान**  
**MITS SCHOOL OF BIOTECHNOLOGY**

Venue:

2(P), Infocity, Patia  
Bhubaneswar-751024 (Odisha)  
Website: [msb.ac.in](http://msb.ac.in)  
Email: [principal@msb.ac.in](mailto:principal@msb.ac.in)



# मिडस जैव प्रौद्योगिकी संस्थान

## MITS SCHOOL OF BIOTECHNOLOGY

Date: 10-04-2022

### REGISTERED STUDENT LIST

Name of the Programme: A Two Week Add-On Program on ARTIFICIAL INTELIGENCE IN BIOTECHNOLOGICAL APPLICATIONS  
11-04-2022 to 29-04-2022

SN	Reg. No	Name of the Student	Year Branch	Signature
1	Y22PB01	AAISHMA MEHER	2 <sup>nd</sup> Year MSC-BT	AAISHMA MEHER
2	Y22PB02	ALINA PADHAN	2 <sup>nd</sup> Year MSC-BT	Alina Padhan
3	Y22PB03	AMLAN PATI	2 <sup>nd</sup> Year MSC-BT	Amlan Pati
4	Y22PB04	ANISHA MOHAPATRA	2 <sup>nd</sup> Year MSC-BT	Anisha Mohapatra
5	Y22PB05	ANKITA KULDIP	2 <sup>nd</sup> Year MSC-BT	Ankita Kuldip
6	Y22PB06	ANKITA PRIYADARSHINI ROUT	2 <sup>nd</sup> Year MSC-BT	Ankita P Rout
7	Y22PB07	BIJAYALAXMI SINGH	2 <sup>nd</sup> Year MSC-BT	Bijayalaxmi Singh
8	Y22PB08	BISWAPRAKASH KAR	2 <sup>nd</sup> Year MSC-BT	Biswaprakash Kar
9	Y22PB09	DEBIDUTTA SUHASINI MISHRA	2 <sup>nd</sup> Year MSC-BT	Debidutta S. Mishra
10	Y22PB10	DEBTOSH PATRA	2 <sup>nd</sup> Year MSC-BT	Debtosh Patra
11	Y22PB11	DIPTIMAYEE JENA	2 <sup>nd</sup> Year MSC-BT	Diptimayee Jena
12	Y22PB12	DIVYASMITA MOHANTY	2 <sup>nd</sup> Year MSC-BT	Divyasmita Mohanty
13	Y22PB13	DURGAPADA SARKHEL	2 <sup>nd</sup> Year MSC-BT	Durgapada Sarkhel
14	Y22PB14	INDIRA KARMAKAR	2 <sup>nd</sup> Year MSC-BT	Indira Karmakar
15	Y22PB15	IPSITA DAS	2 <sup>nd</sup> Year MSC-BT	Ipsita Das
16	Y22PB16	IPSITA ROJALIN PANDA	2 <sup>nd</sup> Year MSC-BT	Ipsita Rajalin Panda
17	Y22PB17	JHILI RANI BAL	2 <sup>nd</sup> Year MSC-BT	Thili Rani Bal
18	Y22PB18	K. MOHAN REDDY	2 <sup>nd</sup> Year MSC-BT	K. Mohan Reddy
19	Y22PB19	KIRANBALA JENA	2 <sup>nd</sup> Year MSC-BT	Kiranbala Jena
20	Y22PB20	LIPSITA ARUK	2 <sup>nd</sup> Year MSC-BT	Lipsita Aruk
21	Y22PB21	LUINA PRIYADARSHINI PRADHAN	2 <sup>nd</sup> Year MSC-BT	Luina Priyadarshini Pradhan
22	Y22PB22	M SHIBANI KAR	2 <sup>nd</sup> Year MSC-BT	M. Shibani Kar.
23	Y22PB23	MONALISHA BISWAL	2 <sup>nd</sup> Year MSC-BT	Monalisha Biswal.
24	Y22PB24	MRUTYUNJAY DAS	2 <sup>nd</sup> Year MSC-BT	Mrutyunjay Das
25	Y22PB25	POOJA MOHANTY	2 <sup>nd</sup> Year MSC-BT	Pooja Mohanty

Pg 1 of 2

26	Y22PB26	PRABHUSAGAR MOHAPATRA	2 <sup>nd</sup> Year MSC-BT	Prabhugan Mohapatra
27	Y22PB27	PRERNA MISHRA	2 <sup>nd</sup> Year MSC-BT	Prerna mishra
28	Y22PB28	PRERANA PANDA	2 <sup>nd</sup> Year MSC-BT	Prerana Panda
29	Y22PB29	PRIYANKA PANDA	2 <sup>nd</sup> Year MSC-BT	Priyanka Panda
30	Y22PB30	RAJESH KUMAR SAHOO	2 <sup>nd</sup> Year MSC-BT	Rajesh k. Sahoo
31	Y22PB31	RASHMITA NANDITA SUBHADARSINI	2 <sup>nd</sup> Year MSC-BT	Rashmita Nandita Subhadarsini
32	Y22PB32	RIYA RAJ	2 <sup>nd</sup> Year MSC-BT	Riya Raj
33	Y22PB33	SAIKH MD AWESH AZAM	2 <sup>nd</sup> Year MSC-BT	Saikh Md Awesh Azam
34	Y22PB34	SANDEEP KUMAR DASH	2 <sup>nd</sup> Year MSC-BT	Sandeep Kumar Dash
35	Y22PB35	SANDIP KUMAR ROUTARAY	2 <sup>nd</sup> Year MSC-BT	Sandip Kumar Routaray
36	Y22PB36	SHRITIKA BAJPAI	2 <sup>nd</sup> Year MSC-BT	Shritika Bajpai
37	Y22PB37	SMARANIKA MAHANTA	2 <sup>nd</sup> Year MSC-BT	Smarnanika Mahanta
38	Y22PB38	SNIGDHA SUBHADARSHINI SAHOO	2 <sup>nd</sup> Year MSC-BT	Snigdha Subhadarshini Sahoo
39	Y22PB39	SOOSRI SUNANDA SWAIN	2 <sup>nd</sup> Year MSC-BT	Soosri Sunanda Swain
40	Y22PB40	SOURA PRATAP JENA	2 <sup>nd</sup> Year MSC-BT	Soura Pratap Jena
41	Y22PB41	SUBHALAXMI BARIK	2 <sup>nd</sup> Year MSC-BT	Subhalaxmi Barik
42	Y22PB42	SUBHALAXMI NAYAK	2 <sup>nd</sup> Year MSC-BT	Subhalaxmi Nayak
43	Y22PB43	SUBHAM KUMAR PUNTIA	2 <sup>nd</sup> Year MSC-BT	Subham Kumar Puntia
44	Y22PB44	SUBRAT KUMAR MATI	2 <sup>nd</sup> Year MSC-BT	Subrat Kumar Mati
45	Y22PB45	SUSHREE BAISHAKHEE PRADHAN	2 <sup>nd</sup> Year MSC-BT	Sushree B. Pradhan
46	Y22PB46	SUSHREE BEAUTY JENA	2 <sup>nd</sup> Year MSC-BT	Sushree Beauty Jena
47	Y22PB47	SUSHREE PRIYADARSHINI PANDA	2 <sup>nd</sup> Year MSC-BT	Sushree Priyadarshini Panda
48	Y22PB48	SUSHREE SAGARIKA PRADHAN	2 <sup>nd</sup> Year MSC-BT	Sushree Sagatika Pradhan
49	Y22PB49	SWATI DAS	2 <sup>nd</sup> Year MSC-BT	Swati Das
50	Y22PB50	SWATI PRIYADARSHINEE NAYAK	2 <sup>nd</sup> Year MSC-BT	Swati Priyadarshinee Nayak

  
COORDINATOR

  
HOD

  
DIRECTOR



# मिटस जैव प्रौद्योगिकी संस्थान MITS SCHOOL OF BIOTECHNOLOGY

Date: 11-04-2022

## REGISTERED STUDENT LIST

Name of the Programme: A Two Week Add-On Program on ARTIFICIAL INTELLIGENCE IN BIOTECHNOLOGICAL APPLICATIONS  
11-04-2022 to 29-04-2022

SN	Reg. No	Name of the Student	Year Branch	Signature
51	Y22PB51	ARPAN KHAMARI	2 <sup>nd</sup> Year MSC-BT	Arpan Khamari
52	Y22PB52	ASHUTOSH PANIGRAHI	2 <sup>nd</sup> Year MSC-BT	Ashutosh Panigrahi
53	Y22PB53	BARSHA PRIYADARSHINI JENA	2 <sup>nd</sup> Year MSC-BT	Barsha Priyadarshini Jena
54	Y22PB54	KIRANMAYEE DAS	2 <sup>nd</sup> Year MSC-BT	Kiranmayee Das
55	Y22PB55	KISHAN KUMAR DAS	2 <sup>nd</sup> Year MSC-BT	Kishan Kumar Das
56	Y22PB56	KUMUDINEE KUMARI MAHTO	2 <sup>nd</sup> Year MSC-BT	Kumudinee Kumari Mahto
57	Y22PB57	MONALISA SAMAL	2 <sup>nd</sup> Year MSC-BT	Monalisa Samal
58	Y22PB58	PRABHUSAGAR MOHAPATRA	2 <sup>nd</sup> Year MSC-BT	Prabhusagar Mohapatra
59	Y22PB59	PRAGNYA PREETINANDA BARIK	2 <sup>nd</sup> Year MSC-BT	Pragnya Preetinanda Barik
60	Y22PB60	PRAMOD KUMAR	2 <sup>nd</sup> Year MSC-BT	Pramod Kumar
61	Y22PB61	SUBHALAXMI PANDA	2 <sup>nd</sup> Year MSC-BT	Subhalaxmi Panda
62	Y22PB62	SUNANDA NAYAK	2 <sup>nd</sup> Year MSC-BT	Sunanda Nayak
63	Y22PB63	SUNIL KUMAR GIRI	2 <sup>nd</sup> Year MSC-BT	Sunil Kumar Giri
64	Y22PB64	SUSHIL KUMAR BEHERA	2 <sup>nd</sup> Year MSC-BT	Sushil K. Behera

  
COORDINATOR

  
HOD

  
DIRECTOR  
MITS School of Biotechnology  
Bhubaneswar



## COURSE SCHEDULE

Name of the Program: A Two Week Add-On Program on ARTIFICIAL INTELLIGENCE IN BIOTECHNOLOGICAL APPLICATIONS  
11-04-2022 To 29-04-2022

SN	Date	Topic	Resource Person
1	11-04-2022	Introduction to AI, machine learning, and deep learning.	Prof. Sidharth Parida
2	12-04-2022	Supervised, unsupervised, reinforcement learning, AI tools and libraries (e.g., Python, TensorFlow, and scikit-learn).	Prof. Sidhartha Parida
3	13-04-2022	Genomics and Bioinformatics	Prof. Sidharth Parida
4	16-04-2022	Sequence alignment and variant calling.	Prof. Sidharth Parida
5	18-04-2022	Predictive modeling in genomics.	Prof. Sidharth Parida
6	19-04-2022	Tools and databases in bioinformatics.	Prof. Sidharth Parida
7	20-04-2022	Drug Discovery and AI	Prof. Sidharth Parida
8	21-04-2022	Case studies in drug discovery.	Prof. Sidharth Parida
9	22-04-2022	AI in Diagnostics and Healthcare	Prof. Sidharth Parida
10	23-04-2022	Final project presentations	Prof. Sidharth Parida
11	25-04-2022	Hands On Session	Prof. Sidharth Parida
12	26-04-2022	Hands On Session	Prof. Sidharth Parida
13	28-04-2022	Hands On Session	Prof. Sidharth Parida
14	29-04-2022	Hands On Session	Prof. Sidharth Parida

  
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DIRECTOR

MITS School of Biotechnology  
Bhubaneswar



## PROGRAM REPORT

30-04-2022

**Name of the Event:** A Two Week Add-On Program on **ARTIFICIAL INTELLIGENCE IN BIOTECHNOLOGICAL APPLICATIONS**

**Date:** 11-04-2022 To 28-04-2022

**Resource Person:** Prof. Sidharth Parida  
Assoc. Professor,  
Dept. of Biotechnology, MSB, Bhubaneswar.  
Contact Number: 9437089337

**Coordinator:** Dr. Mousumi Mishra  
Asst. Professor,  
Dept. of Biotechnology, MSB, Bhubaneswar  
MSB, Bhubaneswar

**Number of students attended:** 64

**Venue:** Conference Hall, MITS School of Biotechnology.

MITS school of Biotechnology, Bhubaneswar, organized a two week add-on program on **ARTIFICIAL INTELLIGENCE IN BIOTECHNOLOGICAL APPLICATIONS** for MSc-Biotechnology students by the resource person Prof. Sidharth Parida. This program is an in-depth training course that aims to bridge the gap between artificial intelligence and biotechnology. This program is designed for individuals with a background in biology or biotechnology who wish to harness the power of AI for various applications in the field. Totally **64** students participated in this training program and after the completion of the program they were able to understand the following objectives and learning outcomes.

### Objectives:

1. Understand the basic concepts of artificial intelligence, machine learning, and deep learning.
2. Explore the potential of AI in biotechnology and its role in accelerating research and development.
3. Learn how to leverage AI for data analysis, predictive modeling, and optimization in biotechnological applications.
4. Gain hands-on experience with AI tools and platforms commonly used in the field
5. Identify real-world applications of AI in biotechnology, including drug discovery, genomics, and personalized medicine.

## About College

Consistently ranking as the best institute in the eastern part of India, MITS School of Biotechnology (MSB) is a self financing professional organisation that was founded in 2003. The faculty consists of having qualification of PhD, M.Tech as well as experience in both Academics and industrial research, so as the student graduates, who are equally impressive mostly working in leading industries of Biotechnology, Pharma and IT. MSB is considered to be most selective, accepting, growing and proven institute under Utkal University. The institute is located at the prime location of Infocity, Bhubaneswar. This prestigious institute includes popular programs of Biotechnology, Applied Micro Biology and Computer Science.

## Courses Offered at MSB

BCA	- 3 Years
B.Sc Biotechnology	- 3 Years
M.Sc Biotechnology	- 2 Years
M.Sc App. Microbiology	- 2 Years

## About Programme

The "Artificial Intelligence in Biotechnological Applications" program is an in-depth training course that aims to bridge the gap between artificial intelligence and biotechnology. This program is designed for individuals with a background in biology or biotechnology who wish to harness the power of AI for various applications in the field. It covers the fundamentals of AI, machine learning, and their application in solving complex problems in biotechnology. Graduates of this program will be well-equipped to leverage the power of AI in biotechnology, driving innovation and efficiency in research, healthcare, and various biotechnological applications.



## Objective of the Programme

The main objective of the program has six verticals: Understand the basic concepts of artificial intelligence, machine learning, and deep learning. Explore the potential of AI in biotechnology, predictive modeling, and optimization in biotechnological applications. Gain hands-on experience with AI tools and platforms commonly used in the field. Identify real-world applications of AI in biotechnology. Collaborate on a final project that applies AI to a specific biotechnological problem.



Resource Person

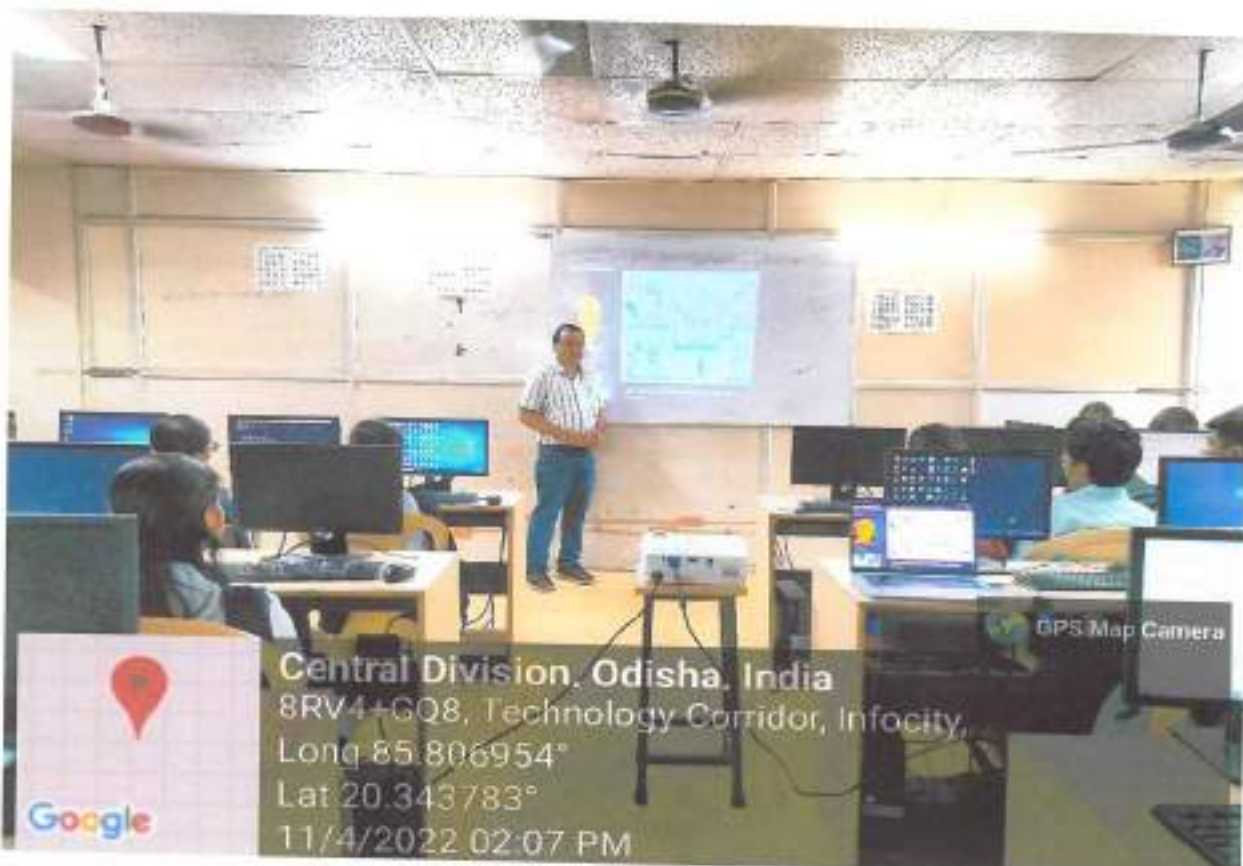
**Prof. Sidharta Parida**

Asst. Prof Department of Biotechnology  
MSB, Bhubaneswar



**Learning Outcomes:**

1. A solid understanding of AI and machine learning fundamentals.
2. The ability to apply AI techniques to solve biotechnological challenges.
3. Practical experience with AI tools and libraries.
4. Skills in data analysis, predictive modeling, and optimization.
5. Knowledge of real-world applications in genomics, drug discovery, healthcare, and personalized medicine.



**A Two Week Add-On Program on ARTIFICIAL INTELLIGENCE IN BIOTECHNOLOGICAL APPLICATIONS, 11-04-2022 To 29-04-2022, Prof. Sidharth Parida.**

This course was very useful to the students of MSc-Biotechnology and their feedback is positive. The management and Professor (Dr.) G. K. Panda, Director of MSB thanked to the resource person and participants for making the programme successful.

  
**COORDINATOR**

  
**HOD**

  
**DIRECTOR**



मिट्स जैव प्रौद्योगिकी संस्थान  
**MITS SCHOOL OF BIOTECHNOLOGY**  
2(P), INFOCITY, PATIA, BHUBANESWAR-751024



## *Certificate*

The MITS School of Biotechnology hereby certifies that

**ALINA PRADHAN**  
MSC-BT-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**ARTIFICIAL INTELLIGENCE IN BIOLOGICAL APPLICATIONS**  
11-04-2022 To 29-04-2022

COORDINATOR

DIRECTOR



मिट्स जैव प्रौद्योगिकी संस्थान  
**MITS SCHOOL OF BIOTECHNOLOGY**  
2(P), INFOCITY, PATIA, BHUBANESWAR-751024



## *Certificate*

The MITS School of Biotechnology hereby certifies that

**AMLAN PATI**  
MSC-BT-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**ARTIFICIAL INTELLIGENCE IN BIOLOGICAL APPLICATIONS**  
11-04-2022 To 29-04-2022

COORDINATOR

DIRECTOR



मिट्स जैव प्रौद्योगिकी संस्थान  
**MITS SCHOOL OF BIOTECHNOLOGY**  
2(P), INFOCITY, PATIA, BHUBANESWAR-751024



## *Certificate*

The MITS School of Biotechnology hereby certifies that

**JHILI RANI BAL**  
MSC-BT-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**ARTIFICIAL INTELLIGENCE IN BIOLOGICAL APPLICATIONS**  
11-04-2022 To 29-04-2022

COORDINATOR

DIRECTOR



मिट्स जैव प्रौद्योगिकी संस्थान  
**MITS SCHOOL OF BIOTECHNOLOGY**  
2(P), INFOCITY, PATIA, BHUBANESWAR-751024

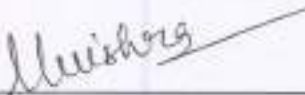


## *Certificate*

The MITS School of Biotechnology hereby certifies that

**DEBTOSH PATRA**  
MSC-BT-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**ARTIFICIAL INTELLIGENCE IN BIOLOGICAL APPLICATIONS**  
11-04-2022 To 29-04-2022

  
\_\_\_\_\_  
**COORDINATOR**

  
\_\_\_\_\_  
**DIRECTOR**



मिट्स जैव प्रौद्योगिकी संस्थान  
**MITS SCHOOL OF BIOTECHNOLOGY**

2(P), INFOCITY, PATIA, BHUBANESWAR-751024



## *Certificate*

The MITS School of Biotechnology hereby certifies that

**ANKITA KULDIP**  
MSC-BT-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**ARTIFICIAL INTELLIGENCE IN BIOLOGICAL APPLICATIONS**  
11-04-2022 To 29-04-2022

COORDINATOR

DIRECTOR



मिट्स जैव प्रौद्योगिकी संस्थान  
**MITS SCHOOL OF BIOTECHNOLOGY**  
2(P), INFOCITY, PATIA, BHUBANESWAR-751024



# Certificate

The MITS School of Biotechnology hereby certifies that

**M SHIBANI KAR**  
MSC-BT-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**ARTIFICIAL INTELLIGENCE IN BIOLOGICAL APPLICATIONS**  
11-04-2022 To 29-04-2022

COORDINATOR

DIRECTOR



मिड्स जैव प्रौद्योगिकी संस्थान  
**MITS SCHOOL OF BIOTECHNOLOGY**  
2(P), INFOCITY, PATIA, BHUBANESWAR-751024



## *Certificate*

The MITS School of Biotechnology hereby certifies that

**RIYA RAJ**  
MSC-BT-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**ARTIFICIAL INTELLIGENCE IN BIOLOGICAL APPLICATIONS**  
11-04-2022 To 29-04-2022

COORDINATOR

DIRECTOR





मिट्स जैव प्रौद्योगिकी संस्थान  
**MITS SCHOOL OF BIOTECHNOLOGY**  
2(P), INFOCITY, PATIA, BHUBANESWAR-751024



## *Certificate*

The MITS School of Biotechnology hereby certifies that

**SHRITIKA BAJPAI**  
MSC-BT-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**ARTIFICIAL INTELLIGENCE IN BIOLOGICAL APPLICATIONS**  
11-04-2022 To 29-04-2022

*Mishra*

COORDINATOR

*Cera*

DIRECTOR



मिट्स जैव प्रौद्योगिकी संस्थान  
**MITS SCHOOL OF BIOTECHNOLOGY**

2(P), INFOCITY, PATIA, BHUBANESWAR-751024



# *Certificate*

The MITS School of Biotechnology hereby certifies that

**SWATI DAS**  
MSC-BT-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**ARTIFICIAL INTELLIGENCE IN BIOLOGICAL APPLICATIONS**  
11-04-2022 To 29-04-2022

COORDINATOR

DIRECTOR



मिट्स जैव प्रौद्योगिकी संस्थान  
**MITS SCHOOL OF BIOTECHNOLOGY**  
2(P), INFOCITY, PATIA, BHUBANESWAR-751024



## Certificate

The MITS School of Biotechnology hereby certifies that

**PRAMOD KUMAR**  
MSC-BT-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**ARTIFICIAL INTELLIGENCE IN BIOLOGICAL APPLICATIONS**  
11-04-2022 To 29-04-2022

COORDINATOR

DIRECTOR

Date: 01-04-2022

### CIRCULAR

It is hereby informed to all final/pre-final year students of MSc-Applied Microbiology that the Department of Biotechnology of this institute is conducting a Two Week Add-On Program on **PRODUCTION OF WINE USING FRUITS AS SUBSTRATE** from **11-04-2022** to **29-04-2022**. Interested students shall register their names at the office of the coordinator on or before 4 PM, 07-04-2022.




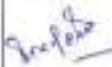
**Venue of the Programme** : Conference Hall, MITS School of Biotechnology.

**Coordinator** : **Dr. Smaranika Sahoo**  
Asst. Professor  
Department of Biotechnology  
MITS School of Biotechnology



**DIRECTOR**  
Director  
MITS School of Biotechnology  
Bhubaneswar

Copy to:

HOD-BIO	HOD-COMP	DO	Warden (BH)	Warden (GH)	LIBRARIAN
			A. Nayak	A. Panda	
CE: For information					

## REGISTRATION FORM

Name.....

Course.....Yr(1/2/3)

Roll No.....

Institution.....

Address for Communication:

Mobile.....

Email.....

Signature

Application to be submitted online in the above format along with the scanned copy of the registration form.

Last Date of Registration: 08.04.2022

Email: csethi.msb@gmail.com

Address for Communication

**Dr. Smaranika Sahoo**  
Coordinator, Asst Professor  
Contact: +91-8763177859

Chief Patron  
**Er. Sriram Panda**  
Chief Executive  
MITS Group

Patron  
**Dr. G.K. Panda**  
Director  
MITS School of Biotechnology

Convenor  
**Dr. Rashmi Ranjan Mishra**  
Head  
Dept. of Biotechnology

Coordinator  
**Dr. Smaranika Sahoo**  
Asst Professor  
Dept. of Biotechnology

Advisory Committee  
**Mr. Sandeep Kumar**  
Dept. of Biotechnology

**Mr. S. Satrusallya**  
Dept. of Chemistry

**Prof. Tarini Charan Kar**  
Dept. of Biotechnology

**A TWO-WEEK ADD-ON  
PROGRAM  
ON**



**PRODUCTION OF WINE USING  
FRUITS AS SUBSTRATE**

Program Schedule

11-04-2022 To 29-04-2022



Organized By:

मिदस जैव प्रौद्योगिकी संस्थान  
MITS SCHOOL OF BIOTECHNOLOGY

Venue:

2(P), Infocity, Patia  
Bhubaneswar-751024 (Odisha)  
Website: msb.ac.in  
Email: principal@msb.ac.in

## About College

Consistently ranking as the best institute in the eastern part of India, MITS School of Biotechnology (MSB) is a self financing professional organisation that was founded in 2003. The faculty consists of having qualification of PhD, M.Tech as well as experience in both Academics and industrial research, so as the student graduates, who are equally impressive mostly working in leading industries of Biotechnology, Pharma and IT. MSB is considered to be most selective, accepting, growing and proven institute under Utkal University. The institute is located at the prime location of Infocity, Bhubaneswar. This prestigious institute includes popular programs of Biotechnology, Applied Micro Biology and Computer Science.

## Courses Offered at MSB

BCA	- 3 Years
B.Sc Biotechnology	- 3 Years
M.Sc Biotechnology	- 2 Years
M.Sc App. Microbiology	- 2 Years

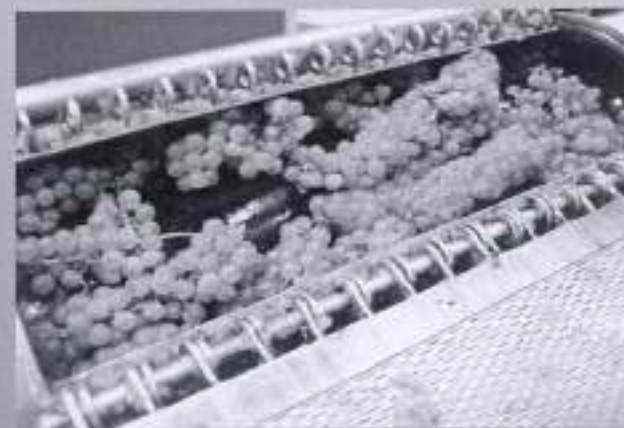
## About Programme

The "Production of Wine Using Fruits as Substrate" program is designed to provide participants with a comprehensive understanding of the wine production process, with a focus on using fruits as a substrate. This program is suitable for individuals interested in wine production, from enthusiasts to aspiring winemakers, and it covers the theoretical and practical aspects of producing fruit wines. Graduates of this program will be well-equipped to produce high-quality fruit wines and may choose to pursue careers in winemaking, start their own wineries, or simply enjoy crafting exceptional wines for personal enjoyment and sharing with others.



## Objective of the Programme

The main objective of the program has six verticals: Learn the fundamental principles of winemaking, Understand the various fruits that can be used as substrates for wine production, Gain hands-on experience in wine production, Learn the evaluation and quality control in winemaking, Explore different wine styles, Collaborate on the production of fruit wine batches during the program.



Resource Person

**Dr. M Mishra**

Asst. Prof Department of Biotechnology  
MSB, Bhubaneswar



# मिडस जैव प्रौद्योगिकी संस्थान MITS SCHOOL OF BIOTECHNOLOGY

Date: 10-04-2022

## REGISTERED STUDENT LIST (MSc-MB)

Name of the Programme: A Two Week Add-On Program on PRODUCTION OF WINE USING FRUITS AS SUBSTRATE

11-04-2022 To 29-04-2022

SN	Reg. No	Name of the Student	Year Branch	Signature
1	Y22PA01	ABHIPSA MOHANTA	2 <sup>nd</sup> Year MSC-AMB	Abhipsa Mohanta
2	Y22PA02	ABHIPSA PATRA	2 <sup>nd</sup> Year MSC-AMB	Abhipsa Patra
3	Y22PA03	ABHIPSA SATAPATHY	2 <sup>nd</sup> Year MSC-AMB	Abhipsa Satapathy
4	Y22PA04	ABHISIKTA MISHRA	2 <sup>nd</sup> Year MSC-AMB	Abhisikta Mishra
5	Y22PA05	ADITI PARIAL	2 <sup>nd</sup> Year MSC-AMB	Aditi Parial
6	Y22PA06	AISWARYA NAYAK	2 <sup>nd</sup> Year MSC-AMB	Aiswarya Nayak
7	Y22PA07	AKANKSHYA DAS	2 <sup>nd</sup> Year MSC-AMB	Akankshya Das
8	Y22PA08	AMBIKA ROUT	2 <sup>nd</sup> Year MSC-AMB	AMBIKA ROUT
9	Y22PA09	BARSHA MALLICK	2 <sup>nd</sup> Year MSC-AMB	Barsha Mallick
10	Y22PA10	BARSARANI MOHARANA	2 <sup>nd</sup> Year MSC-AMB	Barsarani Moharana
11	Y22PA11	BHABATOSH MAITY	2 <sup>nd</sup> Year MSC-AMB	Bhabatosh Maity
12	Y22PA12	BIDYUT PRABHA NAIK	2 <sup>nd</sup> Year MSC-AMB	Bidyut prabha Naik
13	Y22PA13	BISWAJIT SUTAR	2 <sup>nd</sup> Year MSC-AMB	Biswajit Sutar
14	Y22PA14	BUBUNA DAS	2 <sup>nd</sup> Year MSC-AMB	Bubuna Das
15	Y22PA15	GURUPRASAD SATAPATHY	2 <sup>nd</sup> Year MSC-AMB	Guruprasad Satapathy
16	Y22PA16	KADAMBINI PANIGRAHI	2 <sup>nd</sup> Year MSC-AMB	Kadambini Panigrahi
17	Y22PA17	KAJAL SAHOO	2 <sup>nd</sup> Year MSC-AMB	Kajal saho
18	Y22PA18	KASTURI PRIYADARSHINI	2 <sup>nd</sup> Year MSC-AMB	Kasturi priyadarshini
19	Y22PA19	LOPAMUDRA PRADHAN	2 <sup>nd</sup> Year MSC-AMB	Lopamudra Pradhan
20	Y22PA20	MAMITA PANDA	2 <sup>nd</sup> Year MSC-AMB	Mamita Panda
21	Y22PA21	MAYA MONALISA PRUSTY	2 <sup>nd</sup> Year MSC-AMB	Maya Monalisa Prusty
22	Y22PA22	NIBEDITA BEHERA	2 <sup>nd</sup> Year MSC-AMB	Nibedita behera
23	Y22PA23	PAYAL SAHOO	2 <sup>nd</sup> Year MSC-AMB	payal saho
24	Y22PA24	PRALAYA KUMAR SAHOO	2 <sup>nd</sup> Year MSC-AMB	Pralaya Kumar saho
25	Y22PA25	PRATIKSHYA LENKA	2 <sup>nd</sup> Year MSC-AMB	Pratikshya Lenka
26	Y22PA26	PRATIKSHYA PANIGRAHI	2 <sup>nd</sup> Year MSC-AMB	Pratikshya Panigrahi
27	Y22PA27	PREM PRATYUSH MANGRAJ	2 <sup>nd</sup> Year MSC-AMB	Prem Pratyush Mangraj
28	Y22PA28	PRITI GHOSH	2 <sup>nd</sup> Year MSC-AMB	Priti Ghosh

29	Y22PA29	RAJESH KUMAR MAHANTA	2 <sup>nd</sup> Year MSC-AMB	Rajesh Kumar Mahanta
30	Y22PA30	RASHMI RANJAN NANDA	2 <sup>nd</sup> Year MSC-AMB	Rashmi Ranjan Nanda
31	Y22PA31	RATAN KUMAR MOHANTY	2 <sup>nd</sup> Year MSC-AMB	Ratan Kumar Mohanty
32	Y22PA32	RIMA DEY	2 <sup>nd</sup> Year MSC-AMB	Rima Dey
33	Y22PA33	RITUPARNA ROSSANA MISHRA	2 <sup>nd</sup> Year MSC-AMB	Rituparna Rossana Mishra
34	Y22PA34	SAGAR SWAIN	2 <sup>nd</sup> Year MSC-AMB	Sagar Swain
35	Y22PA35	SAKSHAR MISHRA	2 <sup>nd</sup> Year MSC-AMB	Sakshar Mishra
36	Y22PA36	SARADA PRASAD GRAHACHARYA	2 <sup>nd</sup> Year MSC-AMB	SARADA PRASAD GRAHACHARYA
37	Y22PA37	SITOSMA MISHRA	2 <sup>nd</sup> Year MSC-AMB	Sitosma Mishra
38	Y22PA38	SONALI NAG	2 <sup>nd</sup> Year MSC-AMB	Sonali Nag
39	Y22PA39	SONALI PRIYADARSANI	2 <sup>nd</sup> Year MSC-AMB	Sonali Priyadarsani
40	Y22PA40	SOUVIK KARAK	2 <sup>nd</sup> Year MSC-AMB	Souvik Karak
41	Y22PA41	SUBHABRATA DAS	2 <sup>nd</sup> Year MSC-AMB	Subhabrata Das
42	Y22PA42	SUBHADRA PALAI	2 <sup>nd</sup> Year MSC-AMB	Subhadra Palai
43	Y22PA43	SUJATA PATIA	2 <sup>nd</sup> Year MSC-AMB	Sujata Patia
44	Y22PA44	SUMITRA ROUT	2 <sup>nd</sup> Year MSC-AMB	Sumitra Rout
45	Y22PA45	SUSHRUTA BHATTACHARYA	2 <sup>nd</sup> Year MSC-AMB	Sushruta Bhattacharya
46	Y22PA46	SUVASISH KAR	2 <sup>nd</sup> Year MSC-AMB	Suvasish Kar
47	Y22PA47	SWAGATIKA PRADHAN	2 <sup>nd</sup> Year MSC-AMB	Swagatika Pradhan
48	Y22PA48	SWARAJ SAHIL MARTHA	2 <sup>nd</sup> Year MSC-AMB	Swaraj Sahil Martha
49	Y22PA49	SWARNA PRAVA JENA	2 <sup>nd</sup> Year MSC-AMB	Swarna Prava Jena
50	Y22PA50	TRIDEVI PRIYADARSHINI PANDA	2 <sup>nd</sup> Year MSC-AMB	Tridevi Priyadarshini Panda

*Neelisha*  
COORDINATOR

*Deban*  
HOD

*C. P. S.*  
DIRECTOR  
Director  
MITS School of Biotechnology  
Bhubaneswar



Date: 11-04-2022

### REGISTERED STUDENT LIST (MSc-MB)

Name of the Programme: A Two Week Add-On Program on PRODUCTION OF WINE USING FRUITS AS SUBSTRATE

11-04-2022 To 29-04-2022

SN	Reg. No	Name of the Student	Year Branch	Signature
51	Y22PA51	ABHIPSA MOHANTA	2 <sup>nd</sup> Year MSC-AMB	Abhipsa Mohanta
52	Y22PA52	ABHIPSA PATRA	2 <sup>nd</sup> Year MSC-AMB	Abhipsa Patra
53	Y22PA53	ABHIPSA SATAPATHY	2 <sup>nd</sup> Year MSC-AMB	Abhipsa Satpathy
54	Y22PA54	ABHISIKTA MISHRA	2 <sup>nd</sup> Year MSC-AMB	Abhisika Mishra
55	Y22PA55	ADITI PARIAL	2 <sup>nd</sup> Year MSC-AMB	Aditi Parial
56	Y22PA56	AISWARYA NAYAK	2 <sup>nd</sup> Year MSC-AMB	Aiswarya Nayak
57	Y22PA57	AKANKSHYA DAS	2 <sup>nd</sup> Year MSC-AMB	Akankshya Das
58	Y22PA58	AMBIKA ROUT	2 <sup>nd</sup> Year MSC-AMB	Ambika Rout
59	Y22PA59	BARSHA MALLICK	2 <sup>nd</sup> Year MSC-AMB	Barsha mallick
60	Y22PA60	BAR SARANI MOHARANA	2 <sup>nd</sup> Year MSC-AMB	Barsha R. Moharana
61	Y22PA61	BHABATOSH MAITY	2 <sup>nd</sup> Year MSC-AMB	Bhabtosh Maity
62	Y22PA62	BIDYUT PRABHA NAIK	2 <sup>nd</sup> Year MSC-AMB	Bidyut prabha Naik
63	Y22PA63	BISWAJIT SUTAR	2 <sup>nd</sup> Year MSC-AMB	Biswajit Sutar
64	Y22PA64	BUBUNA DAS	2 <sup>nd</sup> Year MSC-AMB	Bubuna Das

  
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## COURSE SCHEDULE

Name of the Program: A Two Week Add-On Program on **PRODUCTION OF WINE USING FRUITS AS SUBSTRATE**  
11-04-2022 To 29-04-2022

SN	Date	Topic	Resource Person
1	11-04-2022	Basics of Winemaking	Dr. Mousumi Mishra
2	12-04-2022	Grape vs. Fruit Wines&Fruit Selection and Harvest	Dr. Mousumi Mishra
3	13-04-2022	Crushing and Pressing	Dr. Mousumi Mishra
4	16-04-2022	Introduction to Yeasts and Fermentation	Dr. Mousumi Mishra
5	18-04-2022	Fermentation Techniques	Dr. Mousumi Mishra
6	19-04-2022	Secondary Fermentation and Maturation	Dr. Mousumi Mishra
7	20-04-2022	Wine Clarification and Stabilization&Sensory Evaluation	Dr. Mousumi Mishra
8	21-04-2022	Wine Bottling and Labeling&Styles of Fruit Wine	Dr. Mousumi Mishra
9	22-04-2022	Blending and Flavor Enhancement&Fruit Wine Packaging and Presentation	Dr. Mousumi Mishra
10	23-04-2022	Participants complete their fruit wine batches &Final Wine Tasting and Evaluation	Dr. Mousumi Mishra
11	25-04-2022	Hands On Session	Dr. Mousumi Mishra
12	26-04-2022	Hands On Session	Dr. Mousumi Mishra
13	28-04-2022	Hands On Session	Dr. Mousumi Mishra
14	29-04-2022	Hands On Session	Dr. Mousumi Mishra

  
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## PROGRAM REPORT

30-04-2022

**Name of the Event:** A Two Week Add-On Program on **PRODUCTION OF WINE USING FRUITS AS SUBSTRATE**

**Date:** 11-04-2022 To 29-04-2022

**Resource Person:** Dr. Mousumi Mishra  
Asst. Professor,  
Dept. of Biotechnology, MSB, Bhubaneswar.  
Contact Number: 9937026755

**Coordinator:** Dr. Smaranika Sahoo  
Asst. Professor,  
Dept. of Biotechnology,  
MSB, Bhubaneswar

**Number of students attended:** 64

**Venue:** Conference Hall, MITS School of Biotechnology.

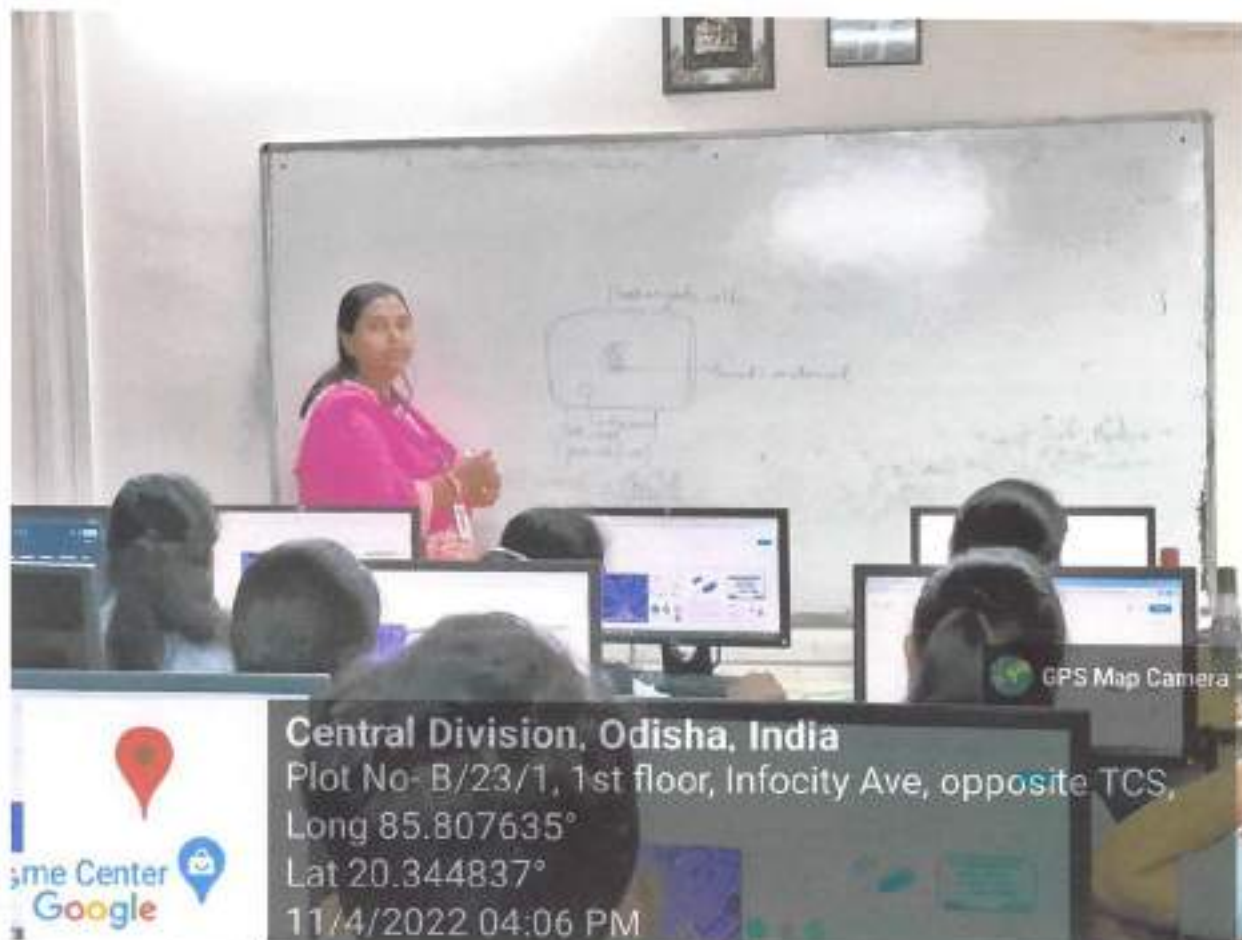
MITS school of Biotechnology, Bhubaneswar, organized a two week add-on program on **PRODUCTION OF WINE USING FRUITS AS SUBSTRATE** for MSc-Applied Microbiology students by the resource person Dr. Mousumi Mishra. This program is designed to provide participants with a comprehensive understanding of the wine production process, with a focus on using fruits as a substrate. Totally **64** students participated in this training program and after the completion of the program they were able to understand the following objectives and learning outcomes.

### Objectives:

1. Learn the fundamental principles of winemaking, including fermentation, aging, and bottling.
2. Understand the various fruits that can be used as substrates for wine production and their unique characteristics.
3. Gain hands-on experience in wine production, from fruit selection to bottling.
4. Learn the art of sensory evaluation and quality control in winemaking.
5. Explore different wine styles and potential variations.

### Learning Outcomes:

1. A solid understanding of the winemaking process and the unique aspects of fruit wine production.
2. Practical experience in producing fruit wines, from fruit selection to bottling.
3. The ability to conduct sensory evaluations and ensure quality control.
4. Knowledge of various fruit wine styles and the ability to customize flavours.
5. A collaborative winemaking project with hands-on experience.



A Two Week Add-On Program on **PRODUCTION OF WINE USING FRUITS AS SUBSTRATE**,  
11-04-2022 To 29-04-2022, Dr. Mousumi Mishra.

This course was very useful to the students of MSc-Applied microbiology and their feedback is positive. The management and Professor (Dr.) G. K. Panda, Director of MSB thanked to the resource person and participants for making the programme successful.

*P. Sahu*  
COORDINATOR

*Dr. M. Mishra*  
HOD

*G. K. Panda*  
DIRECTOR  
MITS School of Biotechnology  
Bhubaneswar



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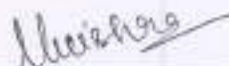


## *Certificate*

The MITS School of Biotechnology hereby certifies that

**KAJOL SAHOO**  
MSC-AMB-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**PRODUCTION OF WINE USING FRUITS AS SUBSTRATE**  
11-04-2022 To 29-04-2022

  
\_\_\_\_\_  
COORDINATOR

  
\_\_\_\_\_  
DIRECTOR



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## Certificate

The MITS School of Biotechnology hereby certifies that

**BUBUNA DAS**  
MSC-AMB-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**PRODUCTION OF WINE USING FRUITS AS SUBSTRATE**  
11-04-2022 To 29-04-2022

COORDINATOR

DIRECTOR



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## *Certificate*

The MITS School of Biotechnology hereby certifies that

**AMBIKA ROUT**  
MSC-AMB-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
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11-04-2022 To 29-04-2022

COORDINATOR

DIRECTOR



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# Certificate

The MITS School of Biotechnology hereby certifies that

**MAMITA PANDA**  
MSC-AMB-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
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11-04-2022 To 29-04-2022

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## *Certificate*

The MITS School of Biotechnology hereby certifies that

**PAYAL SAHOO**  
MSC-AMB-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
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11-04-2022 To 29-04-2022

COORDINATOR

DIRECTOR



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## Certificate

The MITS School of Biotechnology hereby certifies that

**PRITI GHOSH**  
MSC-AMB-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
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11-04-2022 To 29-04-2022

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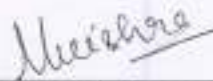


## *Certificate*

The MITS School of Biotechnology hereby certifies that

**RIMA DEY**  
MSC-AMB-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**PRODUCTION OF WINE USING FRUITS AS SUBSTRATE**  
11-04-2022 To 29-04-2022

  
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COORDINATOR

  
\_\_\_\_\_  
DIRECTOR



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## *Certificate*

The MITS School of Biotechnology hereby certifies that

**SAGAR SWAIN**  
MSC-AMB-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**PRODUCTION OF WINE USING FRUITS AS SUBSTRATE**  
11-04-2022 To 29-04-2022

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## *Certificate*

The MITS School of Biotechnology hereby certifies that

**SUJATA PATIA**  
MSC-AMB-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**PRODUCTION OF WINE USING FRUITS AS SUBSTRATE**  
11-04-2022 To 29-04-2022

COORDINATOR

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## *Certificate*

The MITS School of Biotechnology hereby certifies that

**SUVASISH KAR**  
MSC-AMB-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**PRODUCTION OF WINE USING FRUITS AS SUBSTRATE**  
11-04-2022 To 29-04-2022

COORDINATOR

DIRECTOR