

### LIST OF CERTIFICATE PROGRAMS

A. Y: 2020-2021

S. NO.	NAME OF THE PROGRAM	DATE	NO OF STUDENTS PARTICIPATED
1	A Two Week Add-On Program on Hands-on Training in Hardware Maintenance and Networking	01.12.2020 To 17.12.2020	60
2	A Two Week Add-On Program on Big Data	08.03.2021 To 24.03.2021	93
3	A Two Week Add-On Program on Effects of Zoonotic Diseases and Their Control	02.12.2020 To 18.12.2020	112
4	A Two Week Add-On Program on Genetic Modification of Oil-Eating Microbes	01.12.2020 To 17.12.2020	107
5	A Two Week Add-On Program on Exploring Protein Interactions with Bioinformatics	19.12.2020 To 30.12.2020	60
6	A Two Week Add-On Program on Industrial Production of Bio-Fertilizer	19.12.2020 To 30.12.2020	32



**DIRECTOR**

Director  
MITS School of Biotechnology  
Bhubaneswar



# मिटस जैव प्रौद्योगिकी संस्थान MITS SCHOOL OF BIOTECHNOLOGY

Date: 20-11-2020

## 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 **HANDS-ON TRAINING IN HARDWARE MAINTENANCE AND NETWORKING** from **01-12-2020** to **17-12-2020**. Interested students shall register their names at the office of the coordinator on or before 4 PM, **27-11-2020**.

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

**Coordinator** : **Prof. B. M. Ratha**  
Asst. Professor  
Department of Computer Science  
MITS School of Biotechnology

**DIRECTOR**

MITS School of Biotechnology  
Bhubaneswar

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			A. Nayak		Andas
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: 27.11.2020

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

**Address for Communication**

**Mr. Benu Madhab Rath**  
Coordinator, Asst Professor  
Contact: +91-8260040205

**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. Benu Madhab Rath**  
Asst Professor  
Dept. of Computer Science

**Advisory Committee**

**Prof. Kabita sahoo**  
Dept. of Computer Science

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

**Prof. Sidharth Parida**  
Dept. of Biotechnology

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



**HANDS-ON TRAINING IN  
HARDWARE MAINTENANCE  
AND NETWORKING**

Programme Schedule

01-12-2020 to 17-12-2020



Organized By:

**मिड्स 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

Computer hardware & network maintenance is a technical skills involves the capacity to construct a computer from scratch as well as the implementation, management and maintenance of computers and network configurations to optimize performance. computer hardware involves the physical, tangible parts or components of a computer, computer data storage, graphic card, sound card, such as the cabinet, central processing unit, monitor, keyboard, speakers and motherboard.



## Objective of the Programme

The aim is to impart detailed knowledge on the setup and maintain of LAN with internet connection, impart knowledge of installation, identification, repairing and upgrading all hardware equipments and the goal of this certificate course in Hardware Maintenance and Networking is to provide students with the knowledge of computer hardware and networking with all the related technologies.



### Resource Person

**Prof. Chhabi Sethi**  
Dept. of Computer Science  
MSB, Bhubaneswar

Date: 30-11-2020

### REGISTERED STUDENT LIST

Name of the Programme: A Two Week Add-On Program on **HAND-ON TRAINING IN  
HARDWARE MAINTAINANCE AND NETWORKING**  
01-12-2020 to 17-12-2020

SN	Reg. No	Name of the Student	Year Branch	Signature
1	Y20UC01	ABHIJEET PRADHAN	3 <sup>rd</sup> Year BCA	Abhijeet Pradhan
2	Y20UC02	ANKIT NAYAK	3 <sup>rd</sup> Year BCA	ANKIT NAYAK
3	Y20UC03	ANKIT DAS	3 <sup>rd</sup> Year BCA	Ankit das
4	Y20UC04	ANKITA JEE	3 <sup>rd</sup> Year BCA	Ankita Jee
5	Y20UC05	ARPITA MONALISA	3 <sup>rd</sup> Year BCA	Arpita monalisa
6	Y20UC06	BAIBHAB SINGH	3 <sup>rd</sup> Year BCA	Baibhab Singh
7	Y20UC07	BIBHUTI BHUSAN MOHAPATRA	3 <sup>rd</sup> Year BCA	Bibhuti Bhusan Mohapatra
8	Y20UC08	CHIRANJEEB ROUT	3 <sup>rd</sup> Year BCA	Chiranjeeb Rout
9	Y20UC09	DEBABRATA BEHERA	3 <sup>rd</sup> Year BCA	Debabrata Behera
10	Y20UC10	DEBASISHA NAYAK	3 <sup>rd</sup> Year BCA	Debasisha Nayak
11	Y20UC11	DEEPAK KUMAR KASTA	3 <sup>rd</sup> Year BCA	Deepak Kumar Kasta
12	Y20UC12	DEEPSHIKHA ROUT	3 <sup>rd</sup> Year BCA	Deepshikha Rout
13	Y20UC13	DIBYA JYOTI ROUT	3 <sup>rd</sup> Year BCA	Ditya Jyoti's Rout
14	Y20UC14	GYANA RANJAN MOHAPATRA	3 <sup>rd</sup> Year BCA	Gyana Ranjan mohapatra
15	Y20UC15	GURUDEV SUBUDHI	3 <sup>rd</sup> Year BCA	Gurudev Subudhi
16	Y20UC16	HIMANSHU SEKHAR MOHARANA	3 <sup>rd</sup> Year BCA	Himanshu Sekhar Moharana
17	Y20UC17	JHANTU KUMAR PATHAK	3 <sup>rd</sup> Year BCA	Jhantu Kumar Pathak
18	Y20UC18	KRITIK ROUT	3 <sup>rd</sup> Year BCA	Kritik Rout
19	Y20UC19	KUMAR PRATAP SINGH	3 <sup>rd</sup> Year BCA	Kumar Pratap Singh
20	Y20UC20	K RAKESH GOCHHI	3 <sup>rd</sup> Year BCA	K Rakesh Gochhi
21	Y20UC21	MANAS RANJAN KHILAR	3 <sup>rd</sup> Year BCA	Manas Ranjan Khilar
22	Y20UC22	MANGAL JYOTI NAYAK	3 <sup>rd</sup> Year BCA	Mangal Jyoti Nayak
23	Y20UC23	MANOJ KUMAR PRADHAN	3 <sup>rd</sup> Year BCA	Manoj Kumar Pradhan

24	Y20UC24	NARAYAN DENGA	3 <sup>rd</sup> Year BCA	Narayan Denga
25	Y20UC25	PRANAB KUMAR ROUT	3 <sup>rd</sup> Year BCA	Pranab K. Rout
26	Y20UC26	PRATYUSH KUMAR	3 <sup>rd</sup> Year BCA	Pratyush Kumar
27	Y20UC27	PAPPU MAHATO	3 <sup>rd</sup> Year BCA	Pappu Mahato
28	Y20UC28	PANKAJ KUMAR SAHOO	3 <sup>rd</sup> Year BCA	Pankaj Kumar Sahoo
29	Y20UC29	RAHUL PRADHAN	3 <sup>rd</sup> Year BCA	Rahul Pradhan
30	Y20UC30	RAJAT KUMAR SAHOO	3 <sup>rd</sup> Year BCA	Rajat Kumar Sahoo
31	Y20UC31	RANJAN KUMAR MAHANTA	3 <sup>rd</sup> Year BCA	Ranjan K. Mahanta
32	Y20UC32	RATI RANJAN MOHANTY	3 <sup>rd</sup> Year BCA	Rati Ranjan Mohanty
33	Y20UC33	SANJEET ROUTRAY	3 <sup>rd</sup> Year BCA	Sanjeet Routray
34	Y20UC34	SANJAY KANTA PRUSTY	3 <sup>rd</sup> Year BCA	Sanjay Kanta Prusty
35	Y20UC35	SATYA BRATA PATAJOSHI MOHAPATRA	3 <sup>rd</sup> Year BCA	Satya Brata Patanjoshi Mohapatra
36	Y20UC36	SAEED ANWAR KHAN	3 <sup>rd</sup> Year BCA	Saeed Anwar Khan
37	Y20UC37	SATISH KUMAR PRADHAN	3 <sup>rd</sup> Year BCA	Satish Kumar Pradhan
38	Y20UC38	SASWATI SWAIN	3 <sup>rd</sup> Year BCA	Saswati Swain
39	Y20UC39	SHRABANI DIGAL	3 <sup>rd</sup> Year BCA	Shrabani Digal
40	Y20UC40	SIBANANDA MUDULI	3 <sup>rd</sup> Year BCA	Sibananda Muduli
41	Y20UC41	SIBACHIDANANDA PADHI	3 <sup>rd</sup> Year BCA	Sibachidananda Padhi
42	Y20UC42	SOURAV KUMAR	3 <sup>rd</sup> Year BCA	Sourav Kumar
43	Y20UC43	SONAM DAS	3 <sup>rd</sup> Year BCA	Sonam Das
44	Y20UC44	SOUMYA RANJAN PRADHAN	3 <sup>rd</sup> Year BCA	Soumya Ranjan Pradhan
45	Y20UC45	SUNIL KUMAR GOUDA	3 <sup>rd</sup> Year BCA	Sunil Kumar Gouda
46	Y20UC46	TANUJA DANDAPAT	3 <sup>rd</sup> Year BCA	Tanuja Dandapat
47	Y20UC47	TUSHAR KANTA SENAPATI	3 <sup>rd</sup> Year BCA	Tushar Kanta Senapati
48	Y20UC48	UMAKANTA MAHANTA	3 <sup>rd</sup> Year BCA	Umakanta Mahanta
49	Y20UC49	VIVEK KUMAR SINGH	3 <sup>rd</sup> Year BCA	Vivek Kumar Singh
50	Y20UC50	VIVEKANAND SAHOO	3 <sup>rd</sup> Year BCA	Vivekanand Sahoo

  
COORDINATOR

  
HOD

  
DIRECTOR

### REGISTERED STUDENT LIST

**Name of the Programme:** A Two Week Add-On Program on **HAND-ON TRAINING IN HARDWARE MAINTAINANCE AND NETWORKING**  
01-12-2020 to 17-12-2020

SN	Reg. No	Name of the Student	Year Branch	Signature
51	Y20UC51	BINAYAK RAYSINGH	3 <sup>rd</sup> Year BCA	<i>Binayak Raysingh</i>
52	Y20UC52	BISWAJEET GOUDA	3 <sup>rd</sup> Year BCA	<i>Biswajeet Gouda</i>
53	Y20UC53	BISWAJIT SAHOO	3 <sup>rd</sup> Year BCA	<i>Biswajeet saho</i>
54	Y20UC54	CHANDAN MANSINGH	3 <sup>rd</sup> Year BCA	<i>Chandan Mansingh</i>
55	Y20UC55	MONICA JAISWAL	3 <sup>rd</sup> Year BCA	<i>Monica Jaiswal</i>
56	Y20UC56	STHITAPRAJNA SARANGI	3 <sup>rd</sup> Year BCA	<i>Sthitaprajna Sarangi</i>
57	Y20UC57	SONALI DAS	3 <sup>rd</sup> Year BCA	<i>Sonali Das</i>
58	Y20UC58	SONALI NAYAK	3 <sup>rd</sup> Year BCA	<i>Sonali Nayak</i>
59	Y20UC59	SOMANATH GOUDA	3 <sup>rd</sup> Year BCA	<i>Somanath Gouda</i>
60	Y20UC60	JYOTI KUMARI	3 <sup>rd</sup> Year BCA	<i>Jyoti Kumari</i>

*B. M. Path*  
COORDINATOR

*[Signature]*  
HOD

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

### COURSE SCHEDULE

Name of the Program: A Two Week Add-On Programme on **HANDS-ON TRAINING IN  
HARDWARE MAINTENANCE AND NETWORKING**  
01-12-2020 to 17-12-2020

SN	Date	Topic	Resource Person
1	01-12-2020	Introduction to Computers	Prof. C Sethi
2	02-12-2020	Assemble Hardware	Prof. C Sethi
3	03-12-2020	Introduction to Hard disk Partition and formatting and OS installation	Prof. C Sethi
4	04-12-2020	OS features, System utilities	Prof. C Sethi
5	05-12-2020	Device Driver, OS Update and Firewall Security	Prof. C Sethi
6	07-12-2020	Antivirus and Application Software	Prof. C Sethi
7	08-12-2020	Data backup and data recovery software	Prof. C Sethi
8	09-12-2020	Network Components	Prof. C Sethi
9	10-12-2020	Crimping & Punching	Prof. C Sethi
10	11-12-2020	Network Cabling	Prof. C Sethi
11	12-12-2020	Network Model	Prof. C Sethi
12	14-12-2020	Configuration of Data communication equipments	Prof. C Sethi
13	15-12-2020	Hands On Session	Prof. C Sethi
14	17-12-2020	Hands On Session	Prof. C Sethi

*B. M. Rath*  
COORDINATOR

*[Signature]*  
HOD

*[Signature]*  
DIRECTOR

MITS School of Biotechnology  
Bhubaneswar



## PROGRAM REPORT

Date: 18-12-2020

**Name of the Event:** A Two Week Add-On Program on **HANDS-ON TRAINING IN HARDWARE MAINTENANCE AND NETWORKING**

**Date:** 01-12-2020 To 17-12-2020

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

**Coordinator:** **Prof. B. M. Ratha**  
Asst. Professor, Department of Computer Science,  
MSB, Bhubaneswar.

**Number of students attended:** 60

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

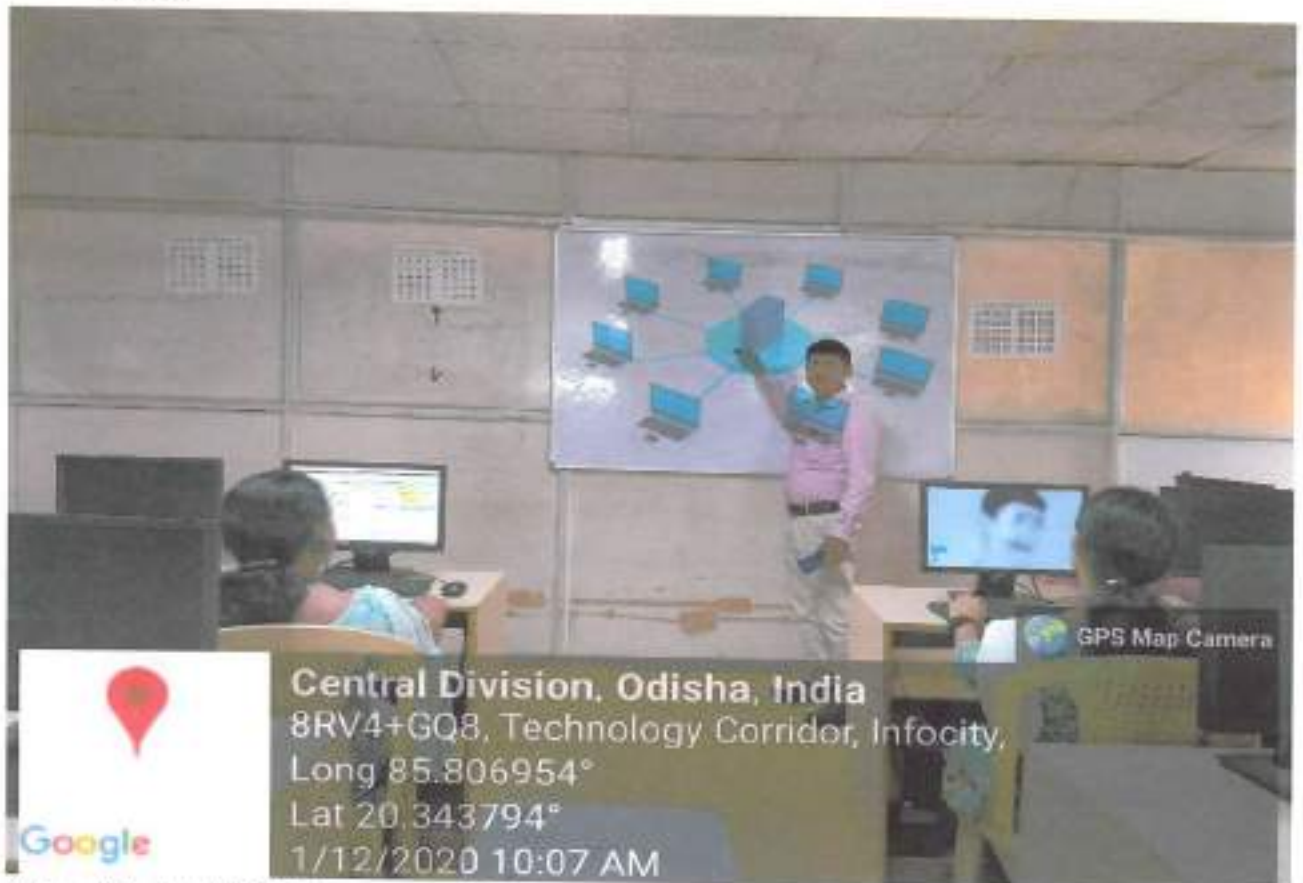
MITS school of Biotechnology, Bhubaneswar, organized a two week add-on program on **HANDS-ON TRAINING IN HARDWARE MAINTENANCE AND NETWORKING** for BCA final year students. Prof. C. Sethi was the resource person for the said event. During the two-week duration of Computer Hardware and Network Maintenance trade a candidate is trained on professional skill, professional knowledge & Employability skill related to job role. In addition to this a candidate is entrusted to undertake project work and extracurricular activities to build up confidence. Totally 60 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. Perform all the functions with Electrical and Electronic Components related to Computer and Networking system drawing following safety precautions.
2. Assemble and repair Desktop Computer with all its hardware components.
3. Install different Operating System and all other application software.
4. Assemble and repair Laptop and its hardware components.

### Learning Outcomes:

1. Understand basic concept & structure of Computer Hardware & Networking Components.
2. Identify the existing configuration of the computers & peripherals.
3. Upgrading the same as & when required.
4. Apply their knowledge about computer peripherals to identify/rectify problems on board.



A Two Week Add-On Program on **HANDS-ON TRAINING IN HARDWARE MAINTENANCE AND NETWORKING**, 01-12-2020 To 17-12-2020, Prof. C. Sethi.

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.

*B. M. Rath*  
COORDINATOR

*M. S. S.*  
HOD

Pg 2 of 2

*C. S.*  
DIRECTOR  
Director  
MITS School of Information Technology  
Bhubaneswar



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

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



## *Certificate*

The MITS School of Biotechnology hereby certifies that

**ANKITA NAYAK**  
BCA-3rd Year

has successfully completed  
A Two Week Add-On Programme On  
**HANDS-ON-TRAINING IN HARDWARE MAINTENANCE AND NETWORKING**  
01-12-2020 To 17-12-2020

*B. M. Rath*

COORDINATOR

*Alpe*

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 DAS**  
BCA-3rd Year

has successfully completed  
A Two Week Add-On Programme On  
**HANDS-ON-TRAINING IN HARDWARE MAINTENANCE AND NETWORKING**  
01-12-2020 To 17-12-2020

*B. M. Rath*

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

**KRITIK ROUT**  
BCA-3rd Year

has successfully completed  
A Two Week Add-On Programme On  
**HANDS-ON-TRAINING IN HARDWARE MAINTENANCE AND NETWORKING**  
01-12-2020 To 17-12-2020

*B. M. Rath*

COORDINATOR

*C. P. S.*

DIRECTOR



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

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



## *Certificate*

The MITS School of Biotechnology hereby certifies that

**KUMAR PRATAP SINGH**  
BCA-3rd Year

has successfully completed  
A Two Week Add-On Programme On  
**HANDS-ON-TRAINING IN HARDWARE MAINTENANCE AND NETWORKING**  
01-12-2020 To 17-12-2020

*B. M. Rath*

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

**ARPITA MONALISHA**  
BCA-3rd Year

has successfully completed  
A Two Week Add-On Programme On  
**HANDS-ON-TRAINING IN HARDWARE MAINTENANCE AND NETWORKING**  
01-12-2020 To 17-12-2020

*B. M. Rath*

COORDINATOR

*Opie*

DIRECTOR



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

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



## *Certificate*

The MITS School of Biotechnology hereby certifies that

**PAPPU MAHATO**  
BCA-3rd Year

has successfully completed  
A Two Week Add-On Programme On  
**HANDS-ON-TRAINING IN HARDWARE MAINTENANCE AND NETWORKING**  
01-12-2020 To 17-12-2020

*B.M. Rath*

COORDINATOR

*Cape*

DIRECTOR





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

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



## *Certificate*

The MITS School of Biotechnology hereby certifies that

**NARAYAN DENGGA**

BCA-3rd Year

has successfully completed  
A Two Week Add-On Programme On  
**HANDS-ON-TRAINING IN HARDWARE MAINTENANCE AND NETWORKING**  
01-12-2020 To 17-12-2020

*B.M. Routh*

COORDINATOR

*C. S. S.*

DIRECTOR



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



# Certificate

The MITS School of Biotechnology hereby certifies that

**PRATYUSH KUMAR**  
BCA-3rd Year

has successfully completed  
A Two Week Add-On Programme On  
**HANDS-ON-TRAINING IN HARDWARE MAINTENANCE AND NETWORKING**  
01-12-2020 To 17-12-2020

*B.M. Rath*

COORDINATOR

*Care*

DIRECTOR



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

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



## *Certificate*

The MITS School of Biotechnology hereby certifies that

**RAHUL PRADHAN**  
BCA-3rd Year

has successfully completed  
A Two Week Add-On Programme On  
**HANDS-ON-TRAINING IN HARDWARE MAINTENANCE AND NETWORKING**  
01-12-2020 To 17-12-2020

*B. M. Raths*

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

**SASWATI SWAIN**  
BCA-3rd Year

has successfully completed  
A Two Week Add-On Programme On  
**HANDS-ON-TRAINING IN HARDWARE MAINTENANCE AND NETWORKING**  
01-12-2020 To 17-12-2020

*B. M. Routh*

COORDINATOR

*C. S. S.*

DIRECTOR

Date: 27-02-2021

## 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 **BIG DATA** from **08-03-2021 to 24-03-2021**. Interested students shall register their names at the office of the coordinator on or before 4 PM, 05-03-2021.

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




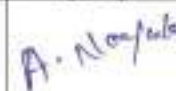


**Coordinator** : **Prof. B. M. Rath**  
Asst. Professor  
Department of Computer Science  
MITS School of Biotechnology



**DIRECTOR**

Director  
MITS School of Biotechnology  
Bhubaneswar

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HOD-BIO	HOD-COMP	DO	Warden (BH)	Warden (GH)	LIBRARIAN
					
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: 05-03-2021

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

Address for Communication

**Prof. B. M. Rath**  
Coordinator, Asst Professor  
Contact: +91-8260040205

**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. B. M. Rath**  
Dept. of Computer Science

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

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

**Dr. Mousumi Mishra**  
Dept. of Biotechnology

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



## BIG DATA

Programme Schedule

08-03-2021 to 24-03-2021



Organized By:

**मिटस 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 offers a comprehensive perspective on the realm of Big Data, covering the essential aspects of storing, accessing, and managing large data sets. Moreover, it places a strong emphasis on exploring the wide array of technologies, encompassing tools and algorithms dedicated to handling Big Data effectively. By completing this course, students gain the skills needed to perform diverse data analyses and draw constructive conclusions from their findings. The course content provides a holistic view of the Big Data landscape, addressing the intricacies of data storage, retrieval, and processing.



## Objective of the Programme

In this course, students will engage in a multifaceted exploration of data analysis and management. They will learn to design classification models tailored for a wide range of datasets, both standard and user-generated, enabling them to categorize and organize data effectively. Additionally, students will develop expertise in clustering techniques and the creation of association rules, particularly for extensive datasets.



Resource Person  
**Prof. Chhabi Sethi**  
Dept. of Computer Science  
MSB, Bhubaneswar

## REGISTERED STUDENT LIST

Name of the Programme: Two Week Add-On program on **BIG DATA**  
08-03-2021 to 24-03-2021

SN	Reg. No	Name of the Student	Year Branch	Signature
1	Y21CS01	ABHISHEK NAYAK	BCA 2 <sup>nd</sup> Year	Abhishek Nayak
2	Y21CS02	AJIT KUMAR ROUT	BCA 2 <sup>nd</sup> Year	Ajit Kumar Rout
3	Y21CS03	AKASH GOUTAM	BCA 2 <sup>nd</sup> Year	Akash Goutam
4	Y21CS04	ALOK PANIGRAHI	BCA 2 <sup>nd</sup> Year	Alok Panigrahi
5	Y21CS05	AMAN PATRA	BCA 2 <sup>nd</sup> Year	AMAN PATRA
6	Y21CS06	ANKIT PRADHAN	BCA 2 <sup>nd</sup> Year	Ankit Pradhan
7	Y21CS07	ANUJA KUMAR PANDA	BCA 2 <sup>nd</sup> Year	Anuja Kumar Panda
8	Y21CS08	ANWESHA JENA	BCA 2 <sup>nd</sup> Year	Anwesha Jena
9	Y21CS09	ARCHITA BARAL	BCA 2 <sup>nd</sup> Year	Archita Baral
10	Y21CS10	ASHUTOSH MOHARANA	BCA 2 <sup>nd</sup> Year	Ashutosh Moharana
11	Y21CS11	ASUTOSH PATTANAIK	BCA 2 <sup>nd</sup> Year	Asutosh Pattanaik
12	Y21CS12	ASUTOSH PADHI	BCA 2 <sup>nd</sup> Year	Asutosh padhi
13	Y21CS13	AYUSH KUMAR SAHOO	BCA 2 <sup>nd</sup> Year	Ayush Kumar Sahoo
14	Y21CS14	B ARPAN	BCA 2 <sup>nd</sup> Year	B ARPAN
15	Y21CS15	BADAL BALABANTARAY	BCA 2 <sup>nd</sup> Year	Badal Balabanta Ray
16	Y21CS16	BADRI NARAYAN PATRA	BCA 2 <sup>nd</sup> Year	Badri Narayan Patra
17	Y21CS17	BANSIKA DASH	BCA 2 <sup>nd</sup> Year	Bansika Dash.
18	Y21CS18	BIMALENDU BARIK	BCA 2 <sup>nd</sup> Year	Bimalendu Barik
19	Y21CS19	BISWAJEET BISWAL	BCA 2 <sup>nd</sup> Year	Biswajeet Biswal
20	Y21CS20	BISWAJIT BEHERA	BCA 2 <sup>nd</sup> Year	Biswajit Behera
21	Y21CS21	BISWAJYOTI RAJ	BCA 2 <sup>nd</sup> Year	Biswajyoti Raj
22	Y21CS22	CHINMAY SAHU	BCA 2 <sup>nd</sup> Year	Chimmay Sahu
23	Y21CS23	CHINMAYA KUMAR ROUT	BCA 2 <sup>nd</sup> Year	Chinmaya Kumar Rout



24	Y21CS24	CHINMAYA SAHOO	BCA 2 <sup>nd</sup> Year	Chinmaya saho
25	Y21CS25	DEBABRATA DIPANKAR DALEI	BCA 2 <sup>nd</sup> Year	Debabrata Dipankar Dalei
26	Y21CS26	DEBASHISH PANDA	BCA 2 <sup>nd</sup> Year	Debashish panda
27	Y21CS27	HIMANSHU SEKHAR DAS	BCA 2 <sup>nd</sup> Year	Himanshu Sekhar DS
28	Y21CS28	ITISHREE ROUT	BCA 2 <sup>nd</sup> Year	Itishree Rout
29	Y21CS29	JIGYANSHU NAYAK	BCA 2 <sup>nd</sup> Year	Jigyanshu Nayak
30	Y21CS30	JITENDRA SAHOO	BCA 2 <sup>nd</sup> Year	JITENDRA saho
31	Y21CS31	KOMAL NISSA	BCA 2 <sup>nd</sup> Year	Komal Nissa
32	Y21CS32	LAXMIPRIYA MAHARANA	BCA 2 <sup>nd</sup> Year	LAXMIPRIYA MAHARANA
33	Y21CS33	LOKESH GOUNDER	BCA 2 <sup>nd</sup> Year	Lokesh Gounder
34	Y21CS34	MADHUSMITA MOHANTY	BCA 2 <sup>nd</sup> Year	Madhusmita Mohanty
35	Y21CS35	MAHARAJA ASUTOSH MOHANTY	BCA 2 <sup>nd</sup> Year	Maharaja Asutosh Mohanty
36	Y21CS36	MANAS RANJAN DASH	BCA 2 <sup>nd</sup> Year	Manu Sasmal
37	Y21CS37	MITU SASMAL	BCA 2 <sup>nd</sup> Year	Mitu Sasmal
38	Y21CS38	N ANAND REDDY	BCA 2 <sup>nd</sup> Year	NANANO REDDY
39	Y21CS39	NIKHIL KUMAR SHARMA	BCA 2 <sup>nd</sup> Year	Nikhil Kumar Sharma
40	Y21CS40	NISHIKET SATPATHY	BCA 2 <sup>nd</sup> Year	Nishiket Satpathy
41	Y21CS41	NITESH KUMAR	BCA 2 <sup>nd</sup> Year	Nitesh kumar
42	Y21CS42	NITISH KUMAR	BCA 2 <sup>nd</sup> Year	Nitish Kumar
43	Y21CS43	PABITRA KUMAR DAS	BCA 2 <sup>nd</sup> Year	Pabitra kumar Das
44	Y21CS44	PRAKASH KUMAR	BCA 2 <sup>nd</sup> Year	Prakash kumar
45	Y21CS45	PRANATI PAL	BCA 2 <sup>nd</sup> Year	Pranati Pal
46	Y21CS46	PRASAD KUMAR BHOKTA	BCA 2 <sup>nd</sup> Year	Prasad kumar Bhokta
47	Y21CS47	PRASANT KUMAR	BCA 2 <sup>nd</sup> Year	Prashant kumar
48	Y21CS48	PRATAP KUMAR DAS	BCA 2 <sup>nd</sup> Year	Prasant kumar
49	Y21CS49	PRITAM RAHUL RANJAN	BCA 2 <sup>nd</sup> Year	Pritam Rahul Ranjan
50	Y21CS50	PRIYANKA DASH	BCA 2 <sup>nd</sup> Year	Priyanka Dash

51	Y21CS51	PRIYANKA PRIYADARSHINI	BCA 2 <sup>nd</sup> Year	Priyanka Priyadarshini
52	Y21CS52	RAHUL RANJAN PRAHARAJ	BCA 2 <sup>nd</sup> Year	Rahul Ranjan Praharaj
53	Y21CS53	RAJESH KUMAR SAHOO	BCA 2 <sup>nd</sup> Year	Rajesh Kumar Sahoo
54	Y21CS54	RAJKISHORE JENA	BCA 2 <sup>nd</sup> Year	Rajkishore Jena
55	Y21CS55	RAVIKANT PANDEY	BCA 2 <sup>nd</sup> Year	Ravikant Pandey
56	Y21CS56	REBA ROY	BCA 2 <sup>nd</sup> Year	REBA ROY
57	Y21CS57	SARTHAK RANJAN NAYAK	BCA 2 <sup>nd</sup> Year	Sarthak Ranjan Nayak
58	Y21CS58	SATYA NARAYAN SAHOO	BCA 2 <sup>nd</sup> Year	Satya Narayan Sahoo
59	Y21CS59	SATYAJEET PANDA	BCA 2 <sup>nd</sup> Year	Satyajeet Panda
60	Y21CS60	SHIBANANDA PRADHAN	BCA 2 <sup>nd</sup> Year	Shibananda Pradhan
61	Y21CS61	SHISHIR KUMAR BARIK	BCA 2 <sup>nd</sup> Year	SHISHIR Kumar Barik
62	Y21CS62	SHIVANANDA MOHAPATRA	BCA 2 <sup>nd</sup> Year	Shivananda Mohapatra
63	Y21CS63	SHREEMAN SWAGAT	BCA 2 <sup>nd</sup> Year	Shreeman Swagat
64	Y21CS64	SHUBHAM A. MALLICK	BCA 2 <sup>nd</sup> Year	Shubham A. Mallick
65	Y21CS65	SIBANANDA MOHAPATRA	BCA 2 <sup>nd</sup> Year	Sibananda Mohapatra
66	Y21CS66	SIBANSU MOHAPATRA	BCA 2 <sup>nd</sup> Year	Sibansu Mohapatra
67	Y21CS67	SIDHARTH KANUNGO	BCA 2 <sup>nd</sup> Year	Sidharth Kanungo
68	Y21CS68	SLIPA PATTANAİK	BCA 2 <sup>nd</sup> Year	Slipa Pattanaik
69	Y21CS69	SMRUTI RANJAN SAHOO	BCA 2 <sup>nd</sup> Year	Smruti Ranjan Sahoo
70	Y21CS70	SMRUTI RANJAN SAHOO	BCA 2 <sup>nd</sup> Year	Smruti Ranjan Sahoo
71	Y21CS71	SNEHANJALI BARIK	BCA 2 <sup>nd</sup> Year	Snehanjali Barik
72	Y21CS72	SOMYA RANJAN SAHOO	BCA 2 <sup>nd</sup> Year	Somya Ranjan Sahoo
73	Y21CS73	SONALI NAYAK	BCA 2 <sup>nd</sup> Year	Sonali Nayak
74	Y21CS74	SONALI PRIYADARSHINI	BCA 2 <sup>nd</sup> Year	Sonali Priyadarshini
75	Y21CS75	SONMAYEE NAYAK	BCA 2 <sup>nd</sup> Year	Sonmayee Nayak
76	Y21CS76	SOUMYASHREE BISWAL	BCA 2 <sup>nd</sup> Year	Soumayee Nayak
77	Y21CS77	SOUMYASNIGDHA BARIK	BCA 2 <sup>nd</sup> Year	Soumyasnigdha Barik
78	Y21CS78	SRITI PRIYADARSHINI SWAIN	BCA 2 <sup>nd</sup> Year	Sriti Priyadarshini Swain

79	Y21CS79	SRUTI LIPI MOHAPATRA	BCA 2 <sup>nd</sup> Year	Sruti Lipi Mohapatra
80	Y21CS80	SUBHASHREE SAHOO	BCA 2 <sup>nd</sup> Year	Subhashree Sahoo
81	Y21CS81	SUBHRAJYOTI MANDAL	BCA 2 <sup>nd</sup> Year	Subhrajyoti Mandal
82	Y21CS82	SUNIL JENA	BCA 2 <sup>nd</sup> Year	Sunil Jena
83	Y21CS83	SWAHAM S. MISHRA	BCA 2 <sup>nd</sup> Year	Swaham S. Mishra
84	Y21CS84	SWARNAPRAVA SAHOO	BCA 2 <sup>nd</sup> Year	Swarnaprava Sahoo
85	Y21CS85	SWATI PATRA	BCA 2 <sup>nd</sup> Year	Swati Patra
86	Y21CS86	SWOPENDU OJHA	BCA 2 <sup>nd</sup> Year	Swopendu Ojha
87	Y21CS87	SWOPNAJEET PRADHAN	BCA 2 <sup>nd</sup> Year	Swopnajeet Pradhan
88	Y21CS88	SYED SHAYAN ALI	BCA 2 <sup>nd</sup> Year	Syed Shayan Ali
89	Y21CS89	TAPASWINI NANDA	BCA 2 <sup>nd</sup> Year	Tapaswini Nanda
90	Y21CS90	UTTAM KUMAR	BCA 2 <sup>nd</sup> Year	Uttam Kumar
91	Y21CS91	UTTAM KUMAR KHANDUAL	BCA 2 <sup>nd</sup> Year	Uttam Kumar Khandual
92	Y21CS92	YADUNATH PRADHAN	BCA 2 <sup>nd</sup> Year	Yadunath Pradhan
93	Y21CS93	ZAID HASSMI	BCA 2 <sup>nd</sup> Year	Zaid Hassmi

*B. M. Rath*  
COORDINATOR

*H. Nayak*  
HOD

*Alpa*  
DIRECTOR  
- Director  
MITS School of Biotechnology  
Bhubaneswar

### COURSE SCHEDULE

Name of the Program: A Two Week Add-On Programme on **BIG DATA**  
08-03-2021 to 24-03-2021

SN	Date	Topic	Resource Person
1	08-03-2021	Introduction to Big Data	Prof. C. Sethi
2	09-03-2021	Characteristics and Need of big data,	Prof. C. Sethi
3	10-03-2021	Overview of business intelligence, Data science and Analytics	Prof. C. Sethi
4	11-03-2021	Meaning and Characteristics of big data analytics	Prof. C. Sethi
5	12-03-2021	Need of big data analytics, Classification of analytics	Prof. C. Sethi
6	13-03-2021	Introducing Hadoop, Need of Hadoop, limitations of RDBMS	Prof. C. Sethi
7	15-03-2021	Distributed computing challenges,	Prof. C. Sethi
8	16-03-2021	History and Use case of Hadoop	Prof. C. Sethi
9	17-03-2021	Hadoop distributors, HDFS (Hadoop Distributed File System)	Prof. C. Sethi
10	18-03-2021	Processing data with Hadoop	Prof. C. Sethi
11	19-03-2021	Interacting with Hadoop Ecosystem	Prof. C. Sethi
12	20-03-2021	Big data serialization formats	Prof. C. Sethi
13	22-03-2021	Hands On Session	Prof. C. Sethi
14	23-03-2021	Hands On Session	Prof. C. Sethi
15	24-03-2021	Hands On Session	Prof. C. Sethi

*B.M. Raith*  
COORDINATOR

*M. Wats*  
HOD

*C. Sethi*  
DIRECTOR

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

25-03-2021

**Name of the Event:** A Two Week Add-On Programme on **BIG DATA**

**Date:** 08-03-2021 To 24-03-2021

**Resource Person:** **Prof. C. Sethi**

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

Contact Number: 9861293070

**Coordinator:** **Prof. B. M. Ratha**

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

**Number of students attended:** 93

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

MITS school of Biotechnology, Bhubaneswar, organized a two week add-on program on **BIG DATA** for BCA second year students. **Prof. C. Sethi** was the resource person for the said event. This course gives an overview of Big Data, i.e. storage, retrieval and processing of big data. In addition, it also focuses on the technologies, i.e., the tools/algorithms that are available for storage, processing of Big Data. It also helps a student to perform a variety of analytics on different data sets and to arrive at positive conclusions. Totally 93 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. Design classification models for various standard datasets and user datasets.
2. Develop clustering techniques and association rules for large standard datasets and user datasets.
3. Analyse large scale data using MAPREDUCE programming which includes JAVA and HADOOP frameworks.

### Learning Outcomes:

1. Understand Big Data and its analytics in the real world.
2. Analyze the Big Data framework like Hadoop and NOSQL to efficiently store and process Big Data to generate analytics.
3. Design of Algorithms to solve Data Intensive Problems using Map Reduce Paradigm.

4. Design and Implementation of Big Data Analytics using pig and spark to solve data intensive problems and to generate analytics.



A Two Week Add-On Program on **BIG DATA**, 08-03-2021 To 24-03-2021, Prof C. Sethi.

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.

*B.M. Rath*  
COORDINATOR

*G. K. Panda*  
HOD

*C. Sethi*  
DIRECTOR  
MITS School of E-Technology  
Bhubaneswar



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



# Certificate

The MITS School of Biotechnology hereby certifies that

**AMAN PATRA**  
BCA-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**BIG DATA**  
08-03-2021 To 24-03-2021

*B. M. Roith*

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

**AJIT KUMAR ROUT**  
BCA-2nd Year

has successfully completed  
**A Two Week Add-On Programme On**  
**BIG DATA**  
**08-03-2021 To 24-03-2021**

*B. M. Routh*

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

**ANKIT PRADHAN**

BCA-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**BIG DATA**  
08-03-2021 To 24-03-2021

*B. N. Rath*

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

**B ARPAN**  
BCA-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**BIG DATA**  
08-03-2021 To 24-03-2021

*B. M. Rauth*

COORDINATOR

*Copra*

DIRECTOR



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

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



## *Certificate*

The MITS School of Biotechnology hereby certifies that

**MITU SASMAL**  
BCA-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**BIG DATA**  
08-03-2021 To 24-03-2021

*B.M. Routh*

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

**KOMAL NISSA**  
BCA-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**BIG DATA**  
08-03-2021 To 24-03-2021

*B.M. Rath*

COORDINATOR

*[Signature]*

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-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**BIG DATA**  
08-03-2021 To 24-03-2021

*B.M. Rath*

COORDINATOR

*Cepa*

DIRECTOR



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



## *Certificate*

The MITS School of Biotechnology hereby certifies that

**PRASANT KUMAR**  
BCA-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**BIG DATA**  
08-03-2021 To 24-03-2021

*B.M. Rath*

COORDINATOR

*C. G. 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

**NITESH KUMAR**  
BCA-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**BIG DATA**  
08-03-2021 To 24-03-2021

*B.M. Rath*

COORDINATOR

*Cope*

DIRECTOR



मिट्स 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-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**BIG DATA**  
08-03-2021 To 24-03-2021

*B.M. Rath*

COORDINATOR

*Copra*

DIRECTOR



Date: 22-11-2020

## 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 **EFFECTS OF ZONOTIC DISEASES AND THEIR CONTROL** from **02-12-2020** to **18-12-2020**. Interested students shall register their names at the office of the coordinator on or before 4 PM, 27-11-2020.

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




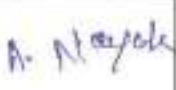


**Coordinator** : **Dr. Smaranika Sahu**  
Asst. Professor  
Department of Biotechnology  
MITS School of Biotechnology



**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: 28.11.2020

Address for Communication

**Dr. Samaranika 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. Samaranika Sahu**  
Asst. Professor  
Dept. of Biotechnology

Advisory Committee

**Dr. Siddhartha Parida**  
Dept. of Biotechnology

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

**Dr. Mousumi Mishra**  
Dept. of Biotechnology

**A TWO-WEEK PROGRAM  
ON**



**THE EFFECTS OF ZONOTIC DISEASES  
AND THEIR CONTROL**

Proram Schedule

02-12-2020 To 18-12-2020



Organized By:

**मिड्स 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

In humans, anthrax manifests in three distinct patterns -a) cutaneous, b) gastrointestinal c) inhalational, the most common is skin infection, where people become infected handling animals or animal products that contain spores. Anthrax is a major but neglected zoonotic disease of public health concern in India with Odisha contributing a major share to the disease burden. Odisha have been reported Anthrax disease from the remote villages and slums containing cow/goat shades. Some persons died, while some are under treatment and significant number of cases go unreported. In the realm of anthrax outbreak, this program is planned to impart knowledge and technical skill how to control the disease in animals and humans.



## Objective of the Programme

The main objective of the program to impart knowledge and technical skill to control the disease, throughout off infection source, Vaccinate to the exposed susceptible animals and humans associated with these animals. Anthrax is controlled through vaccination programs, rapid detection and reporting, quarantine, treatment of sub-clinically affected animals (postexposure prophylaxis), and burning or burial of suspect and confirmed cases.



Resource Person

**Dr. S.N Patel**

Asst. Prof Department of Biotechnology  
MSB, Bhubaneswar

Date: 01-12-2020

### REGISTERED STUDENT LIST

Name of the Programme: A Two Week Add-On Program on THE EFFECTS OF ZOO NOTIC DISEASES AND THEIR CONTROL  
02-12-2020 to 18-12-2020

SN	Reg. No	Name of the Student	Year Branch	Signature
1	Y20UB01	A KIRTI	3 <sup>rd</sup> Year BSc BT	A Kirti
2	Y20UB02	ABHIJIT PANDA	3 <sup>rd</sup> Year BSc BT	Abhijit Panda
3	Y20UB03	ANANTA P. SAHOO	3 <sup>rd</sup> Year BSc BT	Ananta P. Sahoo
4	Y20UB04	ANINDITA DAS	3 <sup>rd</sup> Year BSc BT	Anindita Das
5	Y20UB05	ANJELINA SORENG	3 <sup>rd</sup> Year BSc BT	Anjelina Soreng
6	Y20UB06	BARSHA RANI PANIGRAHI	3 <sup>rd</sup> Year BSc BT	Barsha Rani Panigrahi
7	Y20UB07	BIBHUDUTTA PRADHAN	3 <sup>rd</sup> Year BSc BT	Bibhudutta Pradhan
8	Y20UB08	CHANDRIKA HANSDA	3 <sup>rd</sup> Year BSc BT	Chandrika Hansda
9	Y20UB09	DEBAJYOTI RATH	3 <sup>rd</sup> Year BSc BT	Debjyoti Rath
10	Y20UB10	DEBASHREE MAJHI	3 <sup>rd</sup> Year BSc BT	Debashree Majhi
11	Y20UB11	DEBASISH BAG	3 <sup>rd</sup> Year BSc BT	Debasish Bag
12	Y20UB12	DEEPALI MAHANTA	3 <sup>rd</sup> Year BSc BT	Deepali Mahanta
13	Y20UB13	DIBYAJYOTI DAS	3 <sup>rd</sup> Year BSc BT	Dibyajyoti Das
14	Y20UB14	DIPALI SAHOO	3 <sup>rd</sup> Year BSc BT	Dipali Sahoo
15	Y20UB15	GOKUL M	3 <sup>rd</sup> Year BSc BT	Gokul M
16	Y20UB16	GYANENDRA K.	3 <sup>rd</sup> Year BSc BT	Gyanendra K.
17	Y20UB17	GYANENDRA PADHI	3 <sup>rd</sup> Year BSc BT	Gyanendra Padhi
18	Y20UB18	HARAPRIYA SAHOO	3 <sup>rd</sup> Year BSc BT	Harapriya Sahoo
19	Y20UB19	HIMANSHU S SAHU	3 <sup>rd</sup> Year BSc BT	Himanshu Sahu
20	Y20UB20	JITENDRA K SAHOO	3 <sup>rd</sup> Year BSc BT	Jitendra K Sahoo
21	Y20UB21	KALPANA SINGH	3 <sup>rd</sup> Year BSc BT	Kalpana Singh
22	Y20UB22	KIRTI	3 <sup>rd</sup> Year BSc BT	Kirti
23	Y20UB23	KUMAR ANKUSH MOHANTY	3 <sup>rd</sup> Year BSc BT	Kumar Ankush Mohanty

Pg 1 of 2

24	Y20UB24	MANISHA MOHAPATRA	3 <sup>rd</sup> Year BSc BT	Manisha mohapatra
25	Y20UB25	NIKITA JEE	3 <sup>rd</sup> Year BSc BT	Nikita Jee
26	Y20UB26	NISCHAY K DEY	3 <sup>rd</sup> Year BSc BT	Nischay K Dey
27	Y20UB27	OM SRI R PARIDA	3 <sup>rd</sup> Year BSc BT	Om Sri R Parida
28	Y20UB28	OMKAR MISHRA	3 <sup>rd</sup> Year BSc BT	Omkar Mishra
29	Y20UB29	PALLICITY P DORA	3 <sup>rd</sup> Year BSc BT	Pallicity P Dora
30	Y20UB30	PIYUSH K BEHERA	3 <sup>rd</sup> Year BSc BT	Piyush K Behera
31	Y20UB31	POOJA RAY	3 <sup>rd</sup> Year BSc BT	Pooja Ray
32	Y20UB32	POONAM KACCHAP	3 <sup>rd</sup> Year BSc BT	Poonam kacchap
33	Y20UB33	PRAGYAN SAHU	3 <sup>rd</sup> Year BSc BT	Pragyan Sahu
34	Y20UB34	PRAJNA PARAMITA	3 <sup>rd</sup> Year BSc BT	Prajna Paramita
35	Y20UB35	PRATIKSHA SAHU	3 <sup>rd</sup> Year BSc BT	Pratiksha Sahu
36	Y20UB36	PRATYASHA PATI	3 <sup>rd</sup> Year BSc BT	Pratyasha Pati
37	Y20UB37	PREETIMAYEE JENA	3 <sup>rd</sup> Year BSc BT	Preetimayee Jena
38	Y20UB38	PRIYA	3 <sup>rd</sup> Year BSc BT	Priya
39	Y20UB39	PRIYA KUMARI	3 <sup>rd</sup> Year BSc BT	Priya Kumari
40	Y20UB40	RITIKA BEURA	3 <sup>rd</sup> Year BSc BT	Ritika Beura
41	Y20UB41	ROHIT K MOHANTA	3 <sup>rd</sup> Year BSc BT	Rohit K Mohanta
42	Y20UB42	RUPALI PATI	3 <sup>rd</sup> Year BSc BT	Rupali pati
43	Y20UB43	SABYASACHI PANDA	3 <sup>rd</sup> Year BSc BT	Sabyasachi Panda
44	Y20UB44	SAGARIKA SAHOO	3 <sup>rd</sup> Year BSc BT	Sagarika saho
45	Y20UB45	SAI SANKALP PAUL	3 <sup>rd</sup> Year BSc BT	Sai Sankalp Paul
46	Y20UB46	TANISHA MOHANTA	3 <sup>rd</sup> Year BSc BT	Tanisha Mohanta
47	Y20UB47	TANUSHREE PRADHAN	3 <sup>rd</sup> Year BSc BT	Tanushree Pradhan
48	Y20UB48	TAPASA D MAHAPATRA	3 <sup>rd</sup> Year BSc BT	Tapasa D Mahapatra
49	Y20UB49	TRUPTI T MOHAPATRA	3 <sup>rd</sup> Year BSc BT	Trupti T Mohapatra
50	Y20UB50	UPASANA SAHU	3 <sup>rd</sup> Year BSc BT	Upasana Sahu.

Smaranika Lahu  
COORDINATOR

  
HOD

  
DIRECTOR  
MITS School of Biotechnology  
Bhubaneswar

## REGISTERED STUDENT LIST

Name of the Programme: A Two Week Add-On Program on THE EFFECTS OF ZOOONOTIC DISEASES AND THEIR CONTROL  
02-12-2020 to 18-12-2020

SN	Reg. No	Name of the Student	Year Branch	Signature
51	Y20UB51	ABHIJITA KHAMARI	3 <sup>rd</sup> Year BSc BT	Abhijita Khamari
52	Y20UB52	ABHINANDA MISHRA	3 <sup>rd</sup> Year BSc BT	Abhinanda Mishra
53	Y20UB53	AISHWARYA MISHRA	3 <sup>rd</sup> Year BSc BT	Aishwarya Mishra
54	Y20UB54	AKANSKHYA DHAL	3 <sup>rd</sup> Year BSc BT	Akanshya Dhal
55	Y20UB55	ALFIYA BEGUM	3 <sup>rd</sup> Year BSc BT	Alfiya Begum
56	Y20UB56	ALOK KU. SWAIN	3 <sup>rd</sup> Year BSc BT	Alok Ku. Swain
57	Y20UB57	AMISHA A. NAYAK	3 <sup>rd</sup> Year BSc BT	Amisha A. Nayak
58	Y20UB58	AMRITA PANIGRAHI	3 <sup>rd</sup> Year BSc BT	Amrita Panigrahi
59	Y20UB59	ANKIT BISWAS	3 <sup>rd</sup> Year BSc BT	Ankit Biswas
60	Y20UB60	ANTKITA SINGH	3 <sup>rd</sup> Year BSc BT	Ankita Singh
61	Y20UB61	APARNA DARJEE	3 <sup>rd</sup> Year BSc BT	Aparna Darjee
62	Y20UB62	ARCHANA CHOUDHURY	3 <sup>rd</sup> Year BSc BT	Archana Choudhury
63	Y20UB63	ARPITA PRIYADARSINI	3 <sup>rd</sup> Year BSc BT	Arpita Priyadarsini
64	Y20UB64	ASWASINI MOHANTY	3 <sup>rd</sup> Year BSc BT	Aswasini Mohanty
65	Y20UB65	AVINAB MOHARANA	3 <sup>rd</sup> Year BSc BT	Avinab moharana
66	Y20UB66	BAISNABI SAHOO	3 <sup>rd</sup> Year BSc BT	Baisnabi Sahoo
67	Y20UB67	BANABIHARI PATTANAIK	3 <sup>rd</sup> Year BSc BT	Banabihari Pattanaik
68	Y20UB68	DEEPSIKHA BEHERA	3 <sup>rd</sup> Year BSc BT	Deepshikha Behera
69	Y20UB69	DEEPSIKHA PANIGRAHI	3 <sup>rd</sup> Year BSc BT	Deepshikha Panigrahi
70	Y20UB70	DIBYA CHHACHHAN	3 <sup>rd</sup> Year BSc BT	Dibya Chhachhan
71	Y20UB71	MAHIMA PATRA	3 <sup>rd</sup> Year BSc BT	Mahima Patra
72	Y20UB72	MITALI M. MOHANTY	3 <sup>rd</sup> Year BSc BT	Mitali mallick
73	Y20UB73	MONALI MALLICK	3 <sup>rd</sup> Year BSc BT	Monali Mallick
74	Y20UB74	MOUSHUMI BAJPAYEE	3 <sup>rd</sup> Year BSc BT	Moushumi Bajpayee
75	Y20UB75	NARGISH PARWEN	3 <sup>rd</sup> Year BSc BT	Nargish parween

76	Y20UB76	NIHARIKA SINGH	3 <sup>rd</sup> Year BSc BT	Niharika Singh
77	Y20UB77	PRIYADARSHINI BARIK	3 <sup>rd</sup> Year BSc BT	Priyadarshini Barik
78	Y20UB78	PRIYAMBADA PRADHAN	3 <sup>rd</sup> Year BSc BT	Priyambada Pradhan
79	Y20UB79	PRIYANKA BHUYAN	3 <sup>rd</sup> Year BSc BT	Priyanka Bhuyan
80	Y20UB80	PRIYANKA P PARIDA	3 <sup>rd</sup> Year BSc BT	Priyanka P. Parida
81	Y20UB81	PUSPITA NAYAK	3 <sup>rd</sup> Year BSc BT	Puspita Nayak
82	Y20UB82	RASHMI R SWAIN	3 <sup>rd</sup> Year BSc BT	Rashmi R. Swain
83	Y20UB83	RHYTHM KARIR	3 <sup>rd</sup> Year BSc BT	Rhythm Karir
84	Y20UB84	SAMAYA KAR	3 <sup>rd</sup> Year BSc BT	Samaya Kar
85	Y20UB85	SAMEEKSHA JENA	3 <sup>rd</sup> Year BSc BT	Sameeksha Jena
86	Y20UB86	SAMIKHYA BEHERA	3 <sup>rd</sup> Year BSc BT	Samikhya Behera
87	Y20UB87	SANDIP JANA	3 <sup>rd</sup> Year BSc BT	Sandip Jena
88	Y20UB88	SANJANA SATAPATHY	3 <sup>rd</sup> Year BSc BT	Sanjana Satpathy
89	Y20UB89	SANKET K PUROHIT	3 <sup>rd</sup> Year BSc BT	Sanket K Purohit
90	Y20UB90	SARMISTHA DHAL	3 <sup>rd</sup> Year BSc BT	Sarmistha Dhal
91	Y20UB91	SASMITA PANIGRAHI	3 <sup>rd</sup> Year BSc BT	Sasmita Panigrahi
92	Y20UB92	SATWA S MOHANTY	3 <sup>rd</sup> Year BSc BT	Satwa Mohanty
93	Y20UB93	SHARON S TOPNO	3 <sup>rd</sup> Year BSc BT	Sharon S Topno
94	Y20UB94	SHIREEN BEGUM	3 <sup>rd</sup> Year BSc BT	Shireen Begum
95	Y20UB95	SHRDHANJALI BEHERA	3 <sup>rd</sup> Year BSc BT	Shrdhanjali Behera
96	Y20UB96	SHRUTI S PRADHAN	3 <sup>rd</sup> Year BSc BT	Shruti S Pradhan
97	Y20UB97	SUBHAM DAS	3 <sup>rd</sup> Year BSc BT	Subham Das
98	Y20UB98	SUBHANKAR KIRTANYA	3 <sup>rd</sup> Year BSc BT	Subhankar Kirtanya
99	Y20UB99	SIPRA PRIYADARSHINI	3 <sup>rd</sup> Year BSc BT	Sipra Priyadarshini
100	Y20UB100	SIVA P. RAIGURU	3 <sup>rd</sup> Year BSc BT	Siva P. Raiguru
101	Y20UB101	SOHAN K SAHOO	3 <sup>rd</sup> Year BSc BT	Sohan K Sahoo
102	Y20UB102	SOMOSHREE PAUL	3 <sup>rd</sup> Year BSc BT	Somoshree Paul
103	Y20UB103	SONALI PRIYADARSHINI	3 <sup>rd</sup> Year BSc BT	Sonali Priyadarshini
104	Y20UB104	SONALI PRIYADARSHINI	3 <sup>rd</sup> Year BSc BT	Sonali Priyadarshini
105	Y20UB105	SOUMYA R SAHOO	3 <sup>rd</sup> Year BSc BT	Soumya Sahoo

106	Y20UB106	SUBHASHREE NAYAK	3 <sup>rd</sup> Year BSc BT	Subhashree Nayak
107	Y20UB107	SUCHITRA DASH	3 <sup>rd</sup> Year BSc BT	Suchitra Dash
108	Y20UB108	SUDHA KUMARI	3 <sup>rd</sup> Year BSc BT	Sudha Kumari
109	Y20UB109	SUJIT K GOCHHI	3 <sup>rd</sup> Year BSc BT	Sujit K. Gochhi
110	Y20UB110	SUNSHAINA SAUMEL	3 <sup>rd</sup> Year BSc BT	Sunshaina Saumel
111	Y20UB111	SURYA P DIXIT	3 <sup>rd</sup> Year BSc BT	Surya P Dixit
112	Y20UB112	SUSRIYA SAMMANWITA	3 <sup>rd</sup> Year BSc BT	Susriya Sammanwita

*Smaranika Laha*  
COORDINATOR

*[Signature]*  
HOD

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



### COURSE SCHEDULE

**Name of the Program: A Two Week Add-On Program on EFFECTS OF ZONOTIC DISEASES AND THEIR CONTROL**  
**02-12-2020 To 18-12-2020**

SN	Date	Topic	Resource Person
1	02-12-2020	Introduction of zoonotic diseases	S. N. Patel
2	03-12-2020	How do zoonotic diseases affect humans?	S. N. Patel
3	04-12-2020	Why is zoonotic surveillance important?	S. N. Patel
4	05-12-2020	Importance of zoonotic diseases	S. N. Patel
5	07-12-2020	Major zoonotic diseases and their impact	S. N. Patel
6	08-12-2020	Urbanization affect zoonotic diseases	S. N. Patel
7	09-12-2020	Zoonotic diseases linked to biodiversity loss and globalization	S. N. Patel
8	10-12-2020	Source of zoonotic diseases	S. N. Patel
9	11-12-2020	Zoonotic disease prevention and control, one health	S. N. Patel
10	12-12-2020	Role of zoonotic diseases	S. N. Patel
11	14-12-2020	Are zoonoses under control?	S. N. Patel
12	15-12-2020	Hands on Session	S. N. Patel
13	16-12-2020	Hands on Session	S. N. Patel
14	18-12-2020	Hands on Session	S. N. Patel

*S. Saha*  
**COORDINATOR**

*[Signature]*  
**HOD**

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



## PROGRAM REPORT

19-12-2020

**Name of the Event:** A Two Week Add-On Program on **EFFECTS OF ZONOTIC DISEASES AND THEIR CONTROL**

**Date:** 02-12-2020 To 18-12-2020

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

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

**Number of students attended:** 112

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

MITS school of Biotechnology, Bhubaneswar, organized a two week add-on program on **EFFECTS OF ZONOTIC DISEASES AND THEIR CONTROL** for BSc-Biotechnology students by the resource person **Dr. S N Patel**. This program is based on one health-based approach comprising both veterinarians and medical doctors in addition to environmental experts and other professionals. Totally 112 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. Active and wider zoonoses surveillance and monitoring with advanced tools like satellite-based remote sensing system and molecular epidemiological tools.
2. Disease reporting and notification service.
3. Giving priority to zoonoses and action team formation.
4. Available diagnostic facilities and skilled manpower.
5. Cooperation at regional, national, sub-national, and international levels.

### Learning Outcomes:

1. In many cases the altered food habit, climate change, and environmentally unfriendly human operations influence the emergence and reemergence of many zoonotic diseases because of the increased contact between humans and wild animals.

2. The devastating impact of zoonosis on the human population is evident from the current COVID-19 pandemic.
3. Because of the strong interrelatedness among animals, humans, and environment; research focusing on the one health approach need to be prioritized to identify critical intervention steps in the transmission of pathogens.
4. Robust active surveillance targeting all components of the one health approach need to be implemented to early and accurately detect zoonoses, so that effective control measures could be taken.



A Two Week Add-On Program on **EFFECTS OF ZOO NOTIC DISEASES AND THEIR CONTROL**,  
02-12-2020 To 18-12-2020, 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. Saha*  
**COORDINATOR**

*Dr. S N Patel*  
**HOD**

*G. K. Panda*  
**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

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

has successfully completed  
A Two Week Add-On Programme On  
**EFFECTS OF ZONOTIC DISEASES AND THEIR CONTROL**  
02-12-2020 To 18-12-2020

*B. Sahu*

COORDINATOR

DIRECTOR



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## *Certificate*

The MITS School of Biotechnology hereby certifies that

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

has successfully completed  
A Two Week Add-On Programme On  
**EFFECTS OF ZOO NOTIC DISEASES AND THEIR CONTROL**  
02-12-2020 To 18-12-2020

*S. Sahu*

COORDINATOR

DIRECTOR



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## *Certificate*

The MITS School of Biotechnology hereby certifies that

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

has successfully completed  
A Two Week Add-On Programme On  
**EFFECTS OF ZONOTIC DISEASES AND THEIR CONTROL**  
02-12-2020 To 18-12-2020

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

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



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## *Certificate*

The MITS School of Biotechnology hereby certifies that

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

has successfully completed  
A Two Week Add-On Programme On  
**EFFECTS OF ZONOTIC DISEASES AND THEIR CONTROL**  
02-12-2020 To 18-12-2020

*S. Sahu*

COORDINATOR

*Cape*

DIRECTOR



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## *Certificate*

The MITS School of Biotechnology hereby certifies that

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

has successfully completed  
A Two Week Add-On Programme On  
**EFFECTS OF ZONOTIC DISEASES AND THEIR CONTROL**  
02-12-2020 To 18-12-2020

*B. 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

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

has successfully completed  
A Two Week Add-On Programme On  
**EFFECTS OF ZONOTIC DISEASES AND THEIR CONTROL**  
02-12-2020 To 18-12-2020

*L. Sahu*

COORDINATOR

*Cope*

DIRECTOR



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**MITS SCHOOL OF BIOTECHNOLOGY**

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## *Certificate*

The MITS School of Biotechnology hereby certifies that

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

has successfully completed  
A Two Week Add-On Programme On  
**EFFECTS OF ZONOTIC DISEASES AND THEIR CONTROL**  
02-12-2020 To 18-12-2020

*L. Sahu*

COORDINATOR

*Cep*

DIRECTOR



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**MITS SCHOOL OF BIOTECHNOLOGY**

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



## *Certificate*

The MITS School of Biotechnology hereby certifies that

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

has successfully completed  
A Two Week Add-On Programme On  
**EFFECTS OF ZONOTIC DISEASES AND THEIR CONTROL**  
02-12-2020 To 18-12-2020

  
COORDINATOR

  
DIRECTOR



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## *Certificate*

The MITS School of Biotechnology hereby certifies that

**PREETIMAYEE JENA**

B.Sc-BT-3rd Year

has successfully completed  
A Two Week Add-On Programme On  
**EFFECTS OF ZONOTIC DISEASES AND THEIR CONTROL**  
02-12-2020 To 18-12-2020

  
COORDINATOR

  
DIRECTOR



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

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## *Certificate*

The MITS School of Biotechnology hereby certifies that

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

has successfully completed  
A Two Week Add-On Programme On  
**EFFECTS OF ZONOTIC DISEASES AND THEIR CONTROL**  
02-12-2020 To 18-12-2020

*B. Sahu*

COORDINATOR

*[Signature]*

DIRECTOR



Date: 21-11-2020

## 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 **GENETIC MODIFICATIONS OF OIL-EATING MICROBES** from **01-12-2020** to **17-12-2020**. Interested students shall register their names at the office of the coordinator on or before 4 PM, 26-11-2020.

**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: 26-11-2020

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**



## GENETIC MODIFICATIONS OF OIL-EATING MICROBES

Proram Schedule

01-12-2020 to 17-12-2020



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

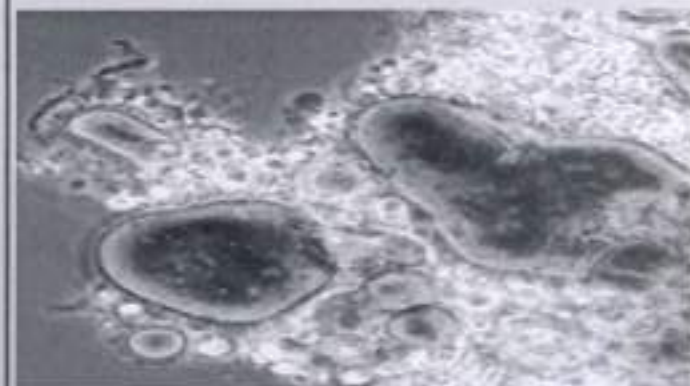
## About Programme

This program delves into the realm of genetic modifications applied to microbes that have a knack for consuming oil. It's not just a scientific endeavor; it also serves as an enriching educational experience. Whether you're a student or a professional, if you're intrigued by the intricacies of biotechnology, microbiology, environmental science, or genetic engineering, this initiative offers a valuable chance to deepen your understanding in these fields.



## Objective of the Programme

Embarking on this program entails a multifaceted exploration of microbial bioremediation, aiming to unravel the intricate role of oil-eating microbes in environmental cleanup and their potential in mitigating the aftermath of oil spills. Participants will delve into the realm of genetic engineering techniques, gaining insight into the various tools employed in biotechnology, with a specific emphasis on their application to microbes.



Resource Person

**Dr. M. Pattanaik**

Asst. Prof.

Department of Biotechnology MSB,  
Bhubaneswar



### REGISTERED STUDENT LIST

Name of the Programme: Two Week Add-On program on GENETIC MODIFICATIONS OF OIL-EATING MICROBES

01-12-2020 to 17-12-2020

SN	Reg. No	Name of the Student	Year Branch	Signature
1	Y19UB01	ABHIPSA BEHERA	2nd Year BSc-BT	Abhipsa behera.
2	Y19UB02	ABHISHEK AMAN KUMAR	2nd Year BSc-BT	Abhishek A. Kumar
3	Y19UB03	ABINASH HOTA	2nd Year BSc-BT	Abinash Hota
4	Y19UB04	AFREEN JAHAN	2nd Year BSc-BT	Afreen Jahan
5	Y19UB05	AKANKSHYA RANI DASH	2nd Year BSc-BT	AKANKSHA BEHURA
6	Y19UB06	ALISHA BEHURA	2nd Year BSc-BT	Alisha Behura
7	Y19UB07	AMARJIT GIRI	2nd Year BSc-BT	Amarjit Giri
8	Y19UB08	ANANYA PANJA	2nd Year BSc-BT	Ananya panja
9	Y19UB09	ANKITA ANURADHA SAMAL	2nd Year BSc-BT	Ankita A. Samal
10	Y19UB10	ANKITA MISHRA	2nd Year BSc-BT	Ankita Mishra
11	Y19UB11	ANKITA MOHANTY	2nd Year BSc-BT	Ankita Mohanty
12	Y19UB12	ANKITA PRIYADARSHANI ROUT	2nd Year BSc-BT	Ankita Priyadarshini Rout
13	Y19UB13	ANKITA ROUT	2nd Year BSc-BT	Ankita Rout
14	Y19UB14	ANSHUMAN DASH	2nd Year BSc-BT	Anshuman Dash
15	Y19UB15	ANUROOPA SAHOO	2nd Year BSc-BT	Anuroopa Sahoo
16	Y19UB16	ARUSMITA DAS	2nd Year BSc-BT	Arusmita Das
17	Y19UB17	AYUSHI DAS	2nd Year BSc-BT	Ayushi Das
18	Y19UB18	B ANAJELINA	2nd Year BSc-BT	Banajelina
19	Y19UB19	BADAL KUMAR SAHOO	2nd Year BSc-BT	Badal K. Sahoo
20	Y19UB20	BAIBHAV SISUGOSWAMI	2nd Year BSc-BT	Baibhav Sisugoswami
21	Y19UB21	BHUPESH KUMAR DAS	2nd Year BSc-BT	Bhupesh Kumar Das
22	Y19UB22	BIDYASHREE PATNAIK	2nd Year BSc-BT	Bidyashree Pattnaik
23	Y19UB23	BISAKHA ROUT	2nd Year BSc-BT	Bisakha Rout
24	Y19UB24	BISWA PRANGYA KHATOI	2nd Year BSc-BT	Biswa Prangya Khato
25	Y19UB25	BISWASHREE DEBATA	2nd Year BSc-BT	Biswashree Debata
26	Y19UB26	CHANDRAMA KUMARI	2nd Year BSc-BT	Chandrama Kumari
27	Y19UB27	CHINMAYA BEHERA	2nd Year BSc-BT	Chinmaya Behera
28	Y19UB28	CHIRANJEEB ROURAY	2nd Year BSc-BT	Chiranjeeb Rouray
29	Y19UB29	D JHANSI RANI	2nd Year BSc-BT	D Jhansi Rani
30	Y19UB30	DEBAJYOTI DAS	2nd Year BSc-BT	Debajyoti Das
31	Y19UB31	DEBASHREE DAS	2nd Year BSc-BT	Debashree Das

20-2

32	Y19UB32	DEEPTIDIPSIKHA SAHOO	2nd Year BSc-BT	Deeptidipsikha Sahoo
33	Y19UB33	DIBYANSU KUMAR JENA	2nd Year BSc-BT	Dibyansu Kumar Jena
34	Y19UB34	HAJRA BIBI	2nd Year BSc-BT	Hajra Bibi
35	Y19UB35	HAREKRUSHNA DAS	2nd Year BSc-BT	Harekrushna Das
36	Y19UB36	HITANSHU MOHARANA	2nd Year BSc-BT	Hitanshu Moharana
37	Y19UB37	JASMIN VIMAL	2nd Year BSc-BT	Jasmin Vimal
38	Y19UB38	JAYA JAYSUDHA	2nd Year BSc-BT	Jaya Jaysudha
39	Y19UB39	JAYSHREE DAS	2nd Year BSc-BT	Jayashree Das
40	Y19UB40	KASHISH AFREEN	2nd Year BSc-BT	Kashish Afreen
41	Y19UB41	KRISHNA KASTURIKA BHOL	2nd Year BSc-BT	Krishna -K Bhol
42	Y19UB42	LOPAMUDRA SINGH	2nd Year BSc-BT	Lopamudra Singh
43	Y19UB43	MANISA DAS	2nd Year BSc-BT	Manisa Das
44	Y19UB44	MINAKSHI KAR	2nd Year BSc-BT	Minakshi Kar
45	Y19UB45	MONALISA NAYAK	2nd Year BSc-BT	Monalisa Nayak
46	Y19UB46	MONALISA PARIDA	2nd Year BSc-BT	Monalisa Parida
47	Y19UB47	MOUSUMI PRYADARSANI SETHY	2nd Year BSc-BT	Mousumi P. Sethy
48	Y19UB48	OMM PATI	2nd Year BSc-BT	Omm Pati
49	Y19UB49	PAYAL CHOUDHURY	2nd Year BSc-BT	Payal Choudhury
50	Y19UB50	PAYAL TRIPATHY	2nd Year BSc-BT	Payal Tripathy
51	Y19UB51	PHOEBE MARGARET	2nd Year BSc-BT	Phobe Margaret
52	Y19UB52	PIYUSH MOHAPATRA	2nd Year BSc-BT	Piyush Mohapatra
53	Y19UB53	PRADYUMNA PANDA	2nd Year BSc-BT	Pragati Swain
54	Y19UB54	PRAGATI SWAIN	2nd Year BSc-BT	Pragati Swain
55	Y19UB55	PRAGYAN PARAMITA SAHOO	2nd Year BSc-BT	Pragyan Paramita Sahoo
56	Y19UB56	PRAGYAN PARAMITA SETHI	2nd Year BSc-BT	Pragyan Paramita Sahoo
57	Y19UB57	PRANNAY KUMAR BEHERA	2nd Year BSc-BT	Prannay Kumar Behera
58	Y19UB58	PRATIBHA PANDA	2nd Year BSc-BT	Pratibha Panda
59	Y19UB59	PREETI PRIYANKA PUROHIT	2nd Year BSc-BT	P.P Purohit
60	Y19UB60	PRINCE KUMAR BEHERA	2nd Year BSc-BT	P.K behera
61	Y19UB61	PRITI PRIYADARSHINI SAHOO	2nd Year BSc-BT	RP Sahoo
62	Y19UB62	PRIYAMBADA SWAIN	2nd Year BSc-BT	P. Swain
63	Y19UB63	PRIYANKA SAMAL	2nd Year BSc-BT	Priyanka Samal
64	Y19UB64	PUSHPANJALI SINGH	2nd Year BSc-BT	P. Singh
65	Y19UB65	RASHMI RANJAN BABOO	2nd Year BSc-BT	Rashmi ranjan Baboo

20.3

66	Y19UB66	RITUPURNA PAIKARAY	2nd Year BSc-BT	Ritupurna Paikaray
67	Y19UB67	ROJALIN JENA	2nd Year BSc-BT	Rojalin Jena
68	Y19UB68	RUTUPARNA SHA	2nd Year BSc-BT	Rutaparna Sha
69	Y19UB69	SAI CHANDAN SAHOO	2nd Year BSc-BT	Sai Chandan Sahoo
70	Y19UB70	SAI SAMIKSHYA SAHU	2nd Year BSc-BT	Saisamikshya Sahu
71	Y19UB71	SAISNIGDHA NAYAK	2nd Year BSc-BT	Saiswarupa Nayak
72	Y19UB72	SAISWARUPA NAYAK	2nd Year BSc-BT	Saiswarupa Nayak
73	Y19UB73	SAKSHYAMA PAIKARAY	2nd Year BSc-BT	S. Paikaray
74	Y19UB74	SAMYAK KANJILAL	2nd Year BSc-BT	Samyak Kanjilal
75	Y19UB75	SANDEEP KUMAR PALAI	2nd Year BSc-BT	Sandeep Kumar Palai
76	Y19UB76	SANDEEP KUMAR PANDA	2nd Year BSc-BT	Satabdi Behera
77	Y19UB77	SATABDI BEHERA	2nd Year BSc-BT	SATABDI BEHERA
78	Y19UB78	SATAKSHI SATAPATHY	2nd Year BSc-BT	Satakshi Satapathy
79	Y19UB79	SATWIK SHUBHAM	2nd Year BSc-BT	Satwik Shubham
80	Y19UB80	SHIBANI MOHANTY	2nd Year BSc-BT	Shibani Mohanty
81	Y19UB81	SHIBASHISH ABHIJIT SAHU	2nd Year BSc-BT	Shibashish Abijit Sahu
82	Y19UB82	SHOMYA RANJAN MOHAPATRA	2nd Year BSc-BT	Shomya Ranjan Mohapatra
83	Y19UB83	SHREYOSÉE CHATTERJEE	2nd Year BSc-BT	Shreyosée Chatterjee
84	Y19UB84	SIBASISH SARANGI	2nd Year BSc-BT	Sibasish Sarangi
85	Y19UB85	SMITA MISHRA	2nd Year BSc-BT	Smita Mishra
86	Y19UB86	SMITA RANI BISWAL	2nd Year BSc-BT	Smita Rani Biswal
87	Y19UB87	SOFIA SATAPATHY	2nd Year BSc-BT	Sofia Satapathy
88	Y19UB88	SONALI BARIK	2nd Year BSc-BT	Sonali Barik
89	Y19UB89	SOUMYA DARSHAN PUHAN	2nd Year BSc-BT	Soumya Darshan Puhan
90	Y19UB90	SRADHA SUMAN MOHANTY	2nd Year BSc-BT	Sradha Suman Mohanty
91	Y19UB91	SRESHTHA SENGUPTA	2nd Year BSc-BT	Sreshtha Sengupta
92	Y19UB92	SRITAM KUMAR DASH	2nd Year BSc-BT	Sritam Kumar Dash
93	Y19UB93	SUBHAJYOTI LENKA	2nd Year BSc-BT	Subhajyoti Lenka
94	Y19UB94	SUBHALAXMI MALL	2nd Year BSc-BT	SUBHALAXMI MALL
95	Y19UB95	SUBHASHREE SWAIN	2nd Year BSc-BT	Subhashree Swain
96	Y19UB96	SUDESHNA PATRA	2nd Year BSc-BT	SUDESHNA PATRA
97	Y19UB97	SUMAN SOUVAGYA	2nd Year BSc-BT	SUMAN SOUVAGYA
98	Y19UB98	SUPRIYA MOHANTY	2nd Year BSc-BT	Supriya Mohanty
99	Y19UB99	SURABHI KUMARI	2nd Year BSc-BT	Surabhi Kumari
100	Y19UB100	SWAPNARANI RANASINGH	2nd Year BSc-BT	Swapnarani Ranasingh

20-4

101	Y19UB101	SWATI SHATAROOPA SINGH	2nd Year BSc-BT	Swati Shataroopa Singh
102	Y19UB102	SWATI SNEHA SINGH	2nd Year BSc-BT	Swati Sneha Singh
103	Y19UB103	SWATI SUMAN MISHRA	2nd Year BSc-BT	Swati Suman Mishra
104	Y19UB104	SWETALINA PRIYADARSINI	2nd Year BSc-BT	Swetalina Priyadarsini
105	Y19UB105	TAPASWINI SAMANTARAY	2nd Year BSc-BT	Tapaswani Samantaray
106	Y19UB106	UPASANA NAYAK	2nd Year BSc-BT	Upasana Nayak
107	Y19UB107	ZAHRA PARWEZ	2nd Year BSc-BT	ZAHRA PARWEZ

S. Sahu.  
COORDINATOR

  
HOD

  
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 Program on **GENETIC MODIFICATIONS OF OIL-EATING MICROBES**  
01-12-2020 to 17-12-2020

SN	Date	Topic	Resource Person
1	01-12-2020	Introduction to Environmental Bioremediation	Dr. ManishaPattanaik
2	02-12-2020	Microbial Ecology and Oil-Degrading Microbes	Dr. ManishaPattanaik
3	03-12-2020	Genetic Engineering Basics	Dr. ManishaPattanaik
4	04-12-2020	Laboratory Safety and Ethics	Dr. ManishaPattanaik
5	05-12-2020	Selecting Target Microbes	Dr. ManishaPattanaik
6	07-12-2020	Genetic Modification Techniques	Dr. ManishaPattanaik
7	08-12-2020	Gene Insertion and Regulation	Dr. ManishaPattanaik
8	09-12-2020	Environmental Impact Assessment	Dr. ManishaPattanaik
9	10-12-2020	Case Studies and Real-World Applications	Dr. ManishaPattanaik
10	11-12-2020	Lab Work: Genetic Modification	Dr. ManishaPattanaik
11	12-12-2020	Lab Work: Analysis and Characterization	Dr. ManishaPattanaik
12	14-12-2020	Research Project Brainstorming	Dr. ManishaPattanaik
13	15-12-2020	Hands On Session	Dr. ManishaPattanaik
14	16-12-2020	Hands On Session	Dr. ManishaPattanaik
15	17-12-2020	Hands On Session	Dr. ManishaPattanaik

S. Saha  
COORDINATOR

  
HOD

  
DIRECTOR  
Director  
MITS School of Biotechnology  
Bhubaneswar



**Name of the Event:** A Two Week Add-On Program on **GENETIC MODIFICATIONS OF OIL-EATING MICROBES**

**Date:** 01-12-2020 to 17-12-2020

**Resource Person:** **Dr. Manisha Pattanaik**

Assoc. Professor,  
Dept. of Biotechnology, MSB, Bhubaneswar.  
Contact Number: 9861075040

**Coordinator:** **Dr. Smaranika Sahu**

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

**Number of students attended:** 107

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

MITS school of Biotechnology, Bhubaneswar, organized a two week add-on program on **GENETIC MODIFICATIONS OF OIL-EATING MICROBES** for BSc-Biotechnology students by the resource person **Dr. M. Pattanaik**. This programme focused on genetic modifications of oil-eating microbes could be a valuable educational opportunity for students or professionals interested in biotechnology, microbiology, environmental science, or genetic engineering. Totally 107 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 Microbial Bioremediation:** Develop a comprehensive understanding of the role of oil-eating microbes in environmental bioremediation and their potential to mitigate oil spills.
2. **To Explore Genetic Engineering Techniques:** Introduce participants to various genetic modification techniques and tools used in biotechnology, with a focus on microbes.
3. **To Assess Environmental Impacts:** Discuss the environmental implications and ethical considerations associated with the use of genetically modified microorganisms for environmental clean-up.
4. **To Develop Practical Skills:** Provide hands-on experience in the laboratory for genetic modification and analysis of oil-eating microbes.

### Learning Outcomes:

1. Participants will have a solid understanding of microbial bioremediation and the genetic modifications that enhance oil degradation.
2. Participants will be proficient in basic genetic engineering techniques.
3. Participants will be able to evaluate the ethical and environmental implications of using genetically modified microbes for bioremediation.
4. Participants will have hands-on experience in the laboratory, including the genetic modification and analysis of oil-eating microbes.
5. Participants will have developed critical thinking skills and identified potential research projects or applications in the field.
6. Participants will be prepared for further studies or careers in bioremediation, genetic engineering, or related fields.



A Two Week Add-On Program on **GENETIC MODIFICATIONS OF OIL-EATING MICROBES**, 01-12-2020 to 17-12-2020, Dr. ManishaPattanaik

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. Saha*  
COORDINATOR

*Dr. G. K. Panda*  
HOD

Pg 2 of 2

*Dr. G. K. Panda*  
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

**AYUSHI DAS**  
B.Sc-BT-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**GENETIC MODIFICATIONS OF OIL-EATING MICROBES**  
01-12-2020 To 17-12-2020

*S. Sahu*

COORDINATOR

DIRECTOR





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## *Certificate*

The MITS School of Biotechnology hereby certifies that

**ABINASH HOTA**  
B.Sc-BT-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**GENETIC MODIFICATIONS OF OIL-EATING MICROBES**  
01-12-2020 To 17-12-2020

*E. Saha*

COORDINATOR

*Cey*

DIRECTOR



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



## *Certificate*

The MITS School of Biotechnology hereby certifies that

**HAJRA BIBI**  
B.Sc-BT-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**GENETIC MODIFICATIONS OF OIL-EATING MICROBES**  
01-12-2020 To 17-12-2020

*B. Sahu*

COORDINATOR

*C. S. Saha*

DIRECTOR



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## *Certificate*

The MITS School of Biotechnology hereby certifies that

**MANISA DAS**  
B.Sc-BT-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**GENETIC MODIFICATIONS OF OIL-EATING MICROBES**  
01-12-2020 To 17-12-2020

*S. Sahu*

COORDINATOR

*C. S. Saha*

DIRECTOR



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## *Certificate*

The MITS School of Biotechnology hereby certifies that

**ROJALIN JENA**  
B.Sc-BT-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**GENETIC MODIFICATIONS OF OIL-EATING MICROBES**  
01-12-2020 To 17-12-2020

*R. Sahu*

COORDINATOR

*C. Jena*

DIRECTOR



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**MITS SCHOOL OF BIOTECHNOLOGY**

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



## *Certificate*

The MITS School of Biotechnology hereby certifies that

**SURABHI KUMARI**

B.Sc-BT-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**GENETIC MODIFICATIONS OF OIL-EATING MICROBES**  
01-12-2020 To 17-12-2020

*S. Saha*

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

**SMITA MISHRA**  
B.Sc-BT-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**GENETIC MODIFICATIONS OF OIL-EATING MICROBES**  
01-12-2020 To 17-12-2020

*S. Sahu*

COORDINATOR

*Ceyo*

DIRECTOR



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



## *Certificate*

The MITS School of Biotechnology hereby certifies that

**SONALI BARIK**  
B.Sc-BT-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**GENETIC MODIFICATIONS OF OIL-EATING MICROBES**  
01-12-2020 To 17-12-2020

*S. Sahu*

COORDINATOR

DIRECTOR



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# *Certificate*

The MITS School of Biotechnology hereby certifies that

**OMM PATI**

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

has successfully completed  
**A Two Week Add-On Programme On  
GENETIC MODIFICATIONS OF OIL-EATING MICROBES  
01-12-2020 To 17-12-2020**

*S. Sahu*

**COORDINATOR**

**DIRECTOR**





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## *Certificate*

The MITS School of Biotechnology hereby certifies that

**PAYAL TRIPATHY**  
B.Sc-BT-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**GENETIC MODIFICATIONS OF OIL-EATING MICROBES**  
01-12-2020 To 17-12-2020

*S. Sahu*

COORDINATOR

*C. S. Saha*

DIRECTOR



# मिटस जैव प्रौद्योगिकी संस्थान MITS SCHOOL OF BIOTECHNOLOGY

Date: 09-12-2020

## 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 **EXPLORING PROTEIN INTERACTIONS WITH BIOINFORMATICS** from **19-12-2020** to **30-12-2020**. Interested students shall register their names at the office of the coordinator on or before 4 PM, 16-12-2020.




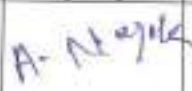
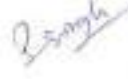

**Venue of the Programme** : Lecture Hall, MITS School of Biotechnology.

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

  
**DIRECTOR**

Director  
MITS School of Biotechnology  
Bhubaneswar

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## 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: 17.12.2020

Email: [csethi.msb@gmail.com](mailto: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. Mousumi Mishra**  
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**



**EXPLORING PROTEIN  
INTERACTIONS WITH  
BIOINFORMATICS**

Program Schedule  
19-12-2020 To 30-12-2020



Organized By:

मि.टि.स. 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

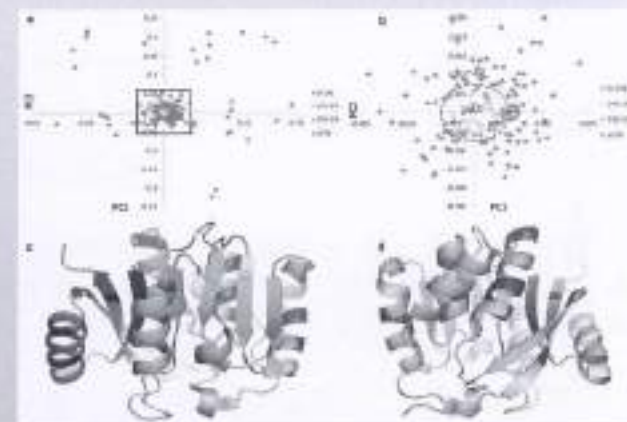
## About Programme

"Exploring protein Interactions with Bioinformatics" is a focused and intensive two-week add-on program designed for individuals interested in gaining a comprehensive understanding of how bioinformatics can be applied to study protein interactions. This program aims to equip participants with the knowledge, and practical skills, necessary to analyse and interpret protein-protein and protein-ligand interactions and relate biological data using bioinformatics tool and techniques.



## Objective of the Programme

The objective of this program is to provide students an intensive learning experience in the field of bioinformatics tools and techniques, specifically geared towards exploring protein-protein and protein-ligand interactions. This program aims to equip participants with the knowledge and practical expertise necessary to analyse, interpret and predict protein interaction.



Resource Person

**Prof. R Behera**

Asst. Prof Department of Biotechnology  
MSB, Bhubaneswar



Date: 18-12-2020

## REGISTERED STUDENT LIST

Name of the Programme: A Two Week Add-On Program on EXPLORING PROTEIN INTERACTIONS WITH BIOINFORMATICS  
19-12-2020 To 30-12-2020

SN	Reg. No	Name of the Student	Year Branch	Signature
1	Y20PB01	ABHIJIT RATHA	2 <sup>nd</sup> Year MSC-BT	Abhijit Ratha
2	Y20PB02	ARPITANJALI GHUDA	2 <sup>nd</sup> Year MSC-BT	Arpitanjali Ghuda
3	Y20PB03	ARUNDHATI RAY	2 <sup>nd</sup> Year MSC-BT	Arundhati Ray
4	Y20PB04	BISWAJIT PANDA	2 <sup>nd</sup> Year MSC-BT	Biswajit Panda
5	Y20PB05	BISWARANJAN NAYAK	2 <sup>nd</sup> Year MSC-BT	Biswaranjan Nayak
6	Y20PB06	CHIRANJIBI NAYAK	2 <sup>nd</sup> Year MSC-BT	Chiranjibi Nayak
7	Y20PB07	DEBADUTTA SATAPATHY	2 <sup>nd</sup> Year MSC-BT	Debadutta Satapathy
8	Y20PB08	DEBESH KUMAR PANDA	2 <sup>nd</sup> Year MSC-BT	Debesh Kumar Panda
9	Y20PB09	DEEPIKA SAHOO	2 <sup>nd</sup> Year MSC-BT	Debesh Kumar /
10	Y20PB10	DHARITRI PRIYADARSINI	2 <sup>nd</sup> Year MSC-BT	Dharitri Priyadarshini
11	Y20PB11	DIBYA BHARATI PADHI	2 <sup>nd</sup> Year MSC-BT	Dibya Bharati Padhi
12	Y20PB12	DIVYA PANDEY	2 <sup>nd</sup> Year MSC-BT	Divya Pandey
13	Y20PB13	ELINA SUBHADRA NAYAK	2 <sup>nd</sup> Year MSC-BT	Elina Subhadra Nayak
14	Y20PB14	HARIPRIYA PANI	2 <sup>nd</sup> Year MSC-BT	Haripriya Pani
15	Y20PB15	IPSITA JENA	2 <sup>nd</sup> Year MSC-BT	Ipsita Jena
16	Y20PB16	JASHASHREE PARIDA	2 <sup>nd</sup> Year MSC-BT	Jashashree Parida
17	Y20PB17	JASMINE MOHAPATRA	2 <sup>nd</sup> Year MSC-BT	Jasmine Mohapatra
18	Y20PB18	KADAMBINI OJHA	2 <sup>nd</sup> Year MSC-BT	Kadambini Ojha
19	Y20PB19	M BISWAJIT GYANARANJAN	2 <sup>nd</sup> Year MSC-BT	M. Biswajit Gyanaranjan
20	Y20PB20	MAMTA MAHATO	2 <sup>nd</sup> Year MSC-BT	Mamta Mahato
21	Y20PB21	MANASI SAHOO	2 <sup>nd</sup> Year MSC-BT	Manasi Sahoo
22	Y20PB22	MANOHAR SAMAL	2 <sup>nd</sup> Year MSC-BT	MANOHAR SAMAL
23	Y20PB23	NISHAT FATIMA	2 <sup>nd</sup> Year MSC-BT	Nishat Fatima

24	Y20PB24	PALLAVI PRADHAN	2 <sup>nd</sup> Year MSC-BT	Pallavi Pradhan
25	Y20PB25	PALLAVI RATHA	2 <sup>nd</sup> Year MSC-BT	Pallavi Ratha
26	Y20PB26	PRABHU PRASAD CHOWDHURY	2 <sup>nd</sup> Year MSC-BT	Prabhu Prasad Chowdhury
27	Y20PB27	PRAGATI NAYAK	2 <sup>nd</sup> Year MSC-BT	Pragati Nayak
28	Y20PB28	PRAGYAN PARAMITA BHATTA	2 <sup>nd</sup> Year MSC-BT	Pragyan Paramita Behera
29	Y20PB29	PRATYASHA BEHERA	2 <sup>nd</sup> Year MSC-BT	Pratyasha Behera
30	Y20PB30	PRIYANKA DAS	2 <sup>nd</sup> Year MSC-BT	Priyanka Das
31	Y20PB31	PRIYANKA PRIYADARSANI SAHU	2 <sup>nd</sup> Year MSC-BT	Priyanka Priyadarshini Sahu
32	Y20PB32	PUSPANJALI SETHI	2 <sup>nd</sup> Year MSC-BT	Puspanjali Sethi
33	Y20PB33	RAJASMITA BARIK	2 <sup>nd</sup> Year MSC-BT	Rajasmita Barik
34	Y20PB34	RAKESH PATTANAİK	2 <sup>nd</sup> Year MSC-BT	Rakesh Pattanaik
35	Y20PB35	RAMAKANTA JENA	2 <sup>nd</sup> Year MSC-BT	Ramakanta Jena
36	Y20PB36	SARTHAK MOHANTY	2 <sup>nd</sup> Year MSC-BT	Sarthak Mohanty
37	Y20PB37	SHWETA PANDIT	2 <sup>nd</sup> Year MSC-BT	Shweta Pandit
38	Y20PB38	SIKTA SUBHRANSHI PADHY	2 <sup>nd</sup> Year MSC-BT	Sikta Subhranshi Padhy
39	Y20PB39	SMRUTI REKHA SAMAL	2 <sup>nd</sup> Year MSC-BT	Smruti Rekha Samal
40	Y20PB40	SMRUTI SUDHA DAS	2 <sup>nd</sup> Year MSC-BT	Smruti Sudha Das
41	Y20PB41	SOMPRIYA ROUT	2 <sup>nd</sup> Year MSC-BT	Sompriya Rout
42	Y20PB42	SOUMYA PRIYADARSINEE MOHANTY	2 <sup>nd</sup> Year MSC-BT	Soumya Priyadarshinee Mohanty
43	Y20PB43	SURYAKANTA MOHAPATRA	2 <sup>nd</sup> Year MSC-BT	Suryakanta Mohapatra
44	Y20PB44	SUSHREE SWAGATIKA PANDA	2 <sup>nd</sup> Year MSC-BT	Sushree Swagatika Panda
45	Y20PB45	SUSMA PRIYADARSANI MOHAPATRA	2 <sup>nd</sup> Year MSC-BT	Susma Priyadarshani Mohapatra
46	Y20PB46	SUSRITAM MOHANTY	2 <sup>nd</sup> Year MSC-BT	Susritam Mohanty
47	Y20PB47	SWATIKIRAN SAHU	2 <sup>nd</sup> Year MSC-BT	Swatikiran Sahu
48	Y20PB48	SWETAPADMA PRAHARAJ	2 <sup>nd</sup> Year MSC-BT	Swetapadma Praharaj
49	Y20PB49	TANMAYEE SMRUTI PRAGYAN ROUT	2 <sup>nd</sup> Year MSC-BT	Tanmayee Smruti Pragyan Rout
50	Y20PB50	UPASANA MISHRA	2 <sup>nd</sup> Year MSC-BT	Upasana Mishra

*A. Mishra*  
COORDINATOR

*P. P. P.*  
HOD

*C. P.*  
DIRECTOR



# मिटस जैव प्रौद्योगिकी संस्थान MITS SCHOOL OF BIOTECHNOLOGY

Date: 19-12-2020

## REGISTERED STUDENT LIST

Name of the Programme: A Two Week Add-On Program on EXPLORING PROTEIN INTERACTIONS WITH BIOINFORMATICS  
19-12-2020 To 30-12-2020

SN	Reg. No	Name of the Student	Year Branch	Signature
51	Y20PB51	AMRITA SWAIN	2 <sup>nd</sup> Year MSC-BT	Amrita Swain
52	Y20PB52	ANKITA ROUT	2 <sup>nd</sup> Year MSC-BT	Ankita Rout
53	Y20PB53	ARPITA DAS	2 <sup>nd</sup> Year MSC-BT	Arpita Das
54	Y20PB54	P. AGNEE KUMARI	2 <sup>nd</sup> Year MSC-BT	P. Agnee Kumari
55	Y20PB55	SOURYA SUBHASHREE SATAPATHY	2 <sup>nd</sup> Year MSC-BT	S. S. Satapathy
56	Y20PB56	SOURYA SWAGATIKA MOHANTY	2 <sup>nd</sup> Year MSC-BT	Sourya Swagatika Mohanty
57	Y20PB57	SUBHAM BEHERA	2 <sup>nd</sup> Year MSC-BT	Subham Behera
58	Y20PB58	SUBHASHREE PRADHAN	2 <sup>nd</sup> Year MSC-BT	Subhashree Pradhan
59	Y20PB59	SUBHASHREE ROUT	2 <sup>nd</sup> Year MSC-BT	Subhashree Rout
60	Y20PB60	SUBHASISH TRIPATHY	2 <sup>nd</sup> Year MSC-BT	Subhasish Tripathy

  
COORDINATOR

  
HOD

  
DIRECTOR

Director  
MITS School of Biotechnology  
Bhubaneswar

## COURSE SCHEDULE

Name of the Program: A Two Week Add-On Program on **EXPLORING PROTEIN INTERACTIONS WITH BIOINFORMATICS**  
19-12-2020 to 30-12-2020

SN	Date	Topic	Resource Person
1	19-12-2020	Introduction to bioinformatics	Prof. R. Behera
2	21-12-2020	Role of bioinformatics in science	Prof. R. Behera
3	22-12-2020	Structure of proteins	Prof. R. Behera
4	23-12-2020	Analysis of 3D structure using software PLIP	Prof. R. Behera
5	24-12-2020	selection and retrieve of data sources	Prof. R. Behera
6	25-12-2020	structure prediction	Prof. R. Behera
7	26-12-2020	Feature representation	Prof. R. Behera
8	28-12-2020	Introduction to bioinformatics	Prof. R. Behera
9	29-12-2020	Hands on Session	Prof. R. Behera
10	30-12-2020	Hands On Session	Prof. R. Behera

  
COORDINATOR

  
HOD

  
DIRECTOR  
MITS School of Biotechnology  
Bhubaneswar





## PROGRAM REPORT

31-12-2020

**Name of the Event:** A Two Week Add-On Program on **EXPLORING PROTEIN INTERACTIONS WITH BIOINFORMATICS**

**Date:** 19-12-2020 to 30-12-2020

**Resource Person:** **Prof. R. Behera**  
Asst. Professor,  
Dept. of Biotechnology, MSB, Bhubaneswar.  
Contact Number: 7008018094

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

**Number of students attended:** 60

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

MITS school of Biotechnology, Bhubaneswar, organized a two week add-on program on **EXPLORING PROTEIN INTERACTIONS WITH BIOINFORMATICS** for MSc-Biotechnology students by the resource person **Prof. R. Behera**. Computational analysis of protein-protein interaction (PPI) networks is increasingly becoming a mandatory tool to understand the functions of unexplored proteins. We also discuss the interpretation of protein-protein interaction information to elucidate protein function. Totally 60 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 protein-protein interactions (PPIs) with a wide range of biological processes, including cell-to-cell interactions and metabolic and developmental control
2. To know the modification of the kinetic properties of enzymes.
3. Learn the construction of a new binding site for small effector molecule.
4. Understand the inactivation or suppression of a protein.
5. Understand the change the specificity of a protein for its substrate through interaction with different binding partners.

**Learning Outcomes:**

1. To predict interactions with 100% accuracy, computational methods will scale down the set of potential interactions to a subset of most likely interactions.
2. The gene expression data and protein interaction data will improve the confidence of protein-protein interactions and the corresponding PPI network when used collectively.
3. Recent developments have also led to the construction of networks having all the protein-protein interactions using computational methods for signal transduction pathways and protein complex identification in specific diseases.



**A Two Week Add-On Program on EXPLORING PROTEIN INTERACTIONS WITH BIOINFORMATICS, 19-12-2020 To 30-12-2020, Prof. R. Behera.**

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**

Pg 2 of 2

  
**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

**ABHIJIT RATHA**  
MSC-BT-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**EXPLORING PROTEIN INTERACTIONS WITH BIOINFORMATICS**  
19-12-2020 To 30-12-2020

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

**DEEPIKA SAHOO**  
MSC-BT-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**EXPLORING PROTEIN INTERACTIONS WITH BIOINFORMATICS**  
19-12-2020 To 30-12-2020

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

**BISWAJIT PANDA**  
MSC-BT-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**EXPLORING PROTEIN INTERACTIONS WITH BIOINFORMATICS**  
19-12-2020 To 30-12-2020

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

**CHIRANJIBI NAYAK**  
MSC-BT-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**EXPLORING PROTEIN INTERACTIONS WITH BIOINFORMATICS**  
19-12-2020 To 30-12-2020

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

**DIVYA PANDEY**  
MSC-BT-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**EXPLORING PROTEIN INTERACTIONS WITH BIOINFORMATICS**  
19-12-2020 To 30-12-2020

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

**HARIPRIYA PANI**  
MSC-BT-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**EXPLORING PROTEIN INTERACTIONS WITH BIOINFORMATICS**  
19-12-2020 To 30-12-2020

*Meenakshi*

COORDINATOR

*Cef*

DIRECTOR





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

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



## *Certificate*

The MITS School of Biotechnology hereby certifies that

**IPSITA JENA**  
MSC-BT-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**EXPLORING PROTEIN INTERACTIONS WITH BIOINFORMATICS**  
19-12-2020 To 30-12-2020

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

**NISHAT FATIMA**  
MSC-BT-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**EXPLORING PROTEIN INTERACTIONS WITH BIOINFORMATICS**  
19-12-2020 To 30-12-2020

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

**MAMTA MAHATO**

MSC-BT-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**EXPLORING PROTEIN INTERACTIONS WITH BIOINFORMATICS**  
19-12-2020 To 30-12-2020

*Mishra*

COORDINATOR

*Chakrabarti*

DIRECTOR



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

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



# Certificate

The MITS School of Biotechnology hereby certifies that

**KADAMBINI OJHA**  
MSC-BT-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**EXPLORING PROTEIN INTERACTIONS WITH BIOINFORMATICS**  
19-12-2020 To 30-12-2020

COORDINATOR

DIRECTOR



Date: 09-12-2020

## 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 **INDUSTRIAL PRODUCTION OF BIO-FERTILISERS** from **19-12-2020** to **30-12-2020**. Interested students shall register their names at the office of the coordinator on or before 4 PM, 16-12-2020.

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

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

**DIRECTOR**

Director

MITS School of Biotechnology  
Bhubaneswar

Copy to:

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			A. Nayak		
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: 17.12.2020

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. Rashmi Ranjan Mishra  
Head  
Dept. of Biotechnology

Coordinator

Dr. Mousumi Mishra  
Asst Professor  
Dept. of Biotechnology

Advisory Committee

Dr. Swati Mishra  
Dept. of Biotechnology

Mr. S. Satrusallya  
Dept. of Chemistry

Dr. Smaranika sahu  
Dept. of Biotechnology

## A TWO-WEEK ADD-ON PROGRAMME ON



## INDUSTRIAL PRODUCTION OF BIO-FERTILISERS

Programme Schedule  
19-12-2020 To 30-12-2020



Organized By:

मिदिस 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

As India is a agriculture based country, balanced soil minerals and nutrients are essential for crops growth and development. But, due to the excessive burden on agricultural land by the increasing population, the land area for farming is limited. NPK is major elements important for plant growth. The demand for NPK are generally fulfilled by employing chemical fertilizers, which imposes serious health hazards are reduce soil fertility . Thus biofertilizers thus production is necessary for the agricultural lands to increase crops productivity and fulfil the food demands of population.



## Objective of the Programme

The main objective of the program to impart knowledge and enhance technical skill to farmers to use biofertilizers for improvement in crops productivity in limited farm lands , thus reducing plants susceptibility to various pathogens. The use of biofertilizers will facilitate industrial production.



Resource Person

**Ms. Monalisha Pradhan**  
Head, Dept. of Biotechnology  
MSB, Bhubaneswar

Date: 18-12-2020

### REGISTERED STUDENT LIST

Name of the Programme: A Two Week Add-On Program on INDUSTRIAL PRODUCTION OF BIOFERTILIZERS  
19-12-2020 To 30-12-2020

SN	Reg. No	Name of the Student	Year Branch	Signature
1	Y20PA01	ANKANA CHATTERJEE	2 <sup>nd</sup> Year MSC-AMB	Ankana chatterjee
2	Y20PA02	ANKITA JENA	2 <sup>nd</sup> Year MSC-AMB	Ankita Jena
3	Y20PA03	ANKITA MEHER	2 <sup>nd</sup> Year MSC-AMB	Ankita meher
4	Y20PA04	ARCHANA PRIYADARSHINI	2 <sup>nd</sup> Year MSC-AMB	Archana priyadarshini
5	Y20PA05	BARSARANI DEVI	2 <sup>nd</sup> Year MSC-AMB	Barsarani Devi
6	Y20PA06	BIBEKANANDA NAIK	2 <sup>nd</sup> Year MSC-AMB	Bibeknanda Devi
7	Y20PA07	BISHAL SINGHA	2 <sup>nd</sup> Year MSC-AMB	Bishal singha
8	Y20PA08	DEBASMITA ROY	2 <sup>nd</sup> Year MSC-AMB	Debasmita Roy
9	Y20PA09	DHARITRI PATRA	2 <sup>nd</sup> Year MSC-AMB	Dharitri Patra
10	Y20PA10	DIPTANSHU PRADHAN	2 <sup>nd</sup> Year MSC-AMB	Diptanshu Pradhan
11	Y20PA11	GARGI DAS	2 <sup>nd</sup> Year MSC-AMB	Gargi Das
12	Y20PA12	IPSITA BANARJEE	2 <sup>nd</sup> Year MSC-AMB	Ipsita Banarjee
13	Y20PA13	JYOTIRMAYEE SAMAL	2 <sup>nd</sup> Year MSC-AMB	Jyotirmayee Samal
14	Y20PA14	MANAS RANJAN ACHARYA	2 <sup>nd</sup> Year MSC-AMB	Manas ranjan acharya
15	Y20PA15	MANAS RANJAN SAMAL	2 <sup>nd</sup> Year MSC-AMB	Manas ranjan samal
16	Y20PA16	MANISH PRADHAN	2 <sup>nd</sup> Year MSC-AMB	Manish Pradhan
17	Y20PA17	MANISHA PRIYADARSHINI	2 <sup>nd</sup> Year MSC-AMB	Manisha Priyadarshini
18	Y20PA18	MEENAKSHI PANDA	2 <sup>nd</sup> Year MSC-AMB	Meenakshi Panda
19	Y20PA19	MINARVA SWAIN	2 <sup>nd</sup> Year MSC-AMB	Minarva Swain
20	Y20PA20	MOUSUMI NAYAK	2 <sup>nd</sup> Year MSC-AMB	Mousumi Nayak
21	Y20PA21	NAMRATA BANERJEE	2 <sup>nd</sup> Year MSC-AMB	Namrata Banerjee
22	Y20PA22	P. MANISHA	2 <sup>nd</sup> Year MSC-AMB	P. Manisha
23	Y20PA23	PADYASHREE KANUNGO	2 <sup>nd</sup> Year MSC-AMB	Padyashree Kanungo



24	Y20PA24	PRIYANKA SAMANTARAY	2 <sup>nd</sup> Year MSC-AMB	Priyanka Samantaray
25	Y20PA25	SAI SWAROOP DAS	2 <sup>nd</sup> Year MSC-AMB	Sai Swaroop Das
26	Y20PA26	SAUMYARANJAN RAY	2 <sup>nd</sup> Year MSC-AMB	Saumyaranjan Ray
27	Y20PA27	SAUMYASHREE SWAIN	2 <sup>nd</sup> Year MSC-AMB	Saumyashree Swain
28	Y20PA28	SAURAV KUMAR SAHOO	2 <sup>nd</sup> Year MSC-AMB	Saurav Kumar Sahoo
29	Y20PA29	SAUVIK GHANTI	2 <sup>nd</sup> Year MSC-AMB	Sauvik Ghanti
30	Y20PA30	S K SUNSUYA	2 <sup>nd</sup> Year MSC-AMB	S K Suresuya
31	Y20PA31	SOHIT KUMAR NAYAK	2 <sup>nd</sup> Year MSC-AMB	Sohit Kumar Nayak
32	Y20PA32	SONALI PATTANAİK	2 <sup>nd</sup> Year MSC-AMB	Sonali Pattanaik
33	Y20PA33	SUBHADARSINI DASH	2 <sup>nd</sup> Year MSC-AMB	Subhadarsini Dash
34	Y20PA34	SUSHREE SWAGATIKA SUBHADARSINI	2 <sup>nd</sup> Year MSC-AMB	Sushree Swagatika
35	Y20PA35	SUSHREE SWETA SUVARNA PATTANAİK	2 <sup>nd</sup> Year MSC-AMB	Sushree Sweta Suvanna Pattanaik
36	Y20PA36	SWAPNA JANI	2 <sup>nd</sup> Year MSC-AMB	Swapna Jani
37	Y20PA37	SWETA DASH	2 <sup>nd</sup> Year MSC-AMB	Sweta Dash
38	Y20PA38	SWETA MOHANTY	2 <sup>nd</sup> Year MSC-AMB	Sweta Mohanty
39	Y20PA39	TANAYA RATH	2 <sup>nd</sup> Year MSC-AMB	Tanaya Rath

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### COURSE SCHEDULE

Name of the Program: A Two Week Add-On Program on **INDUSTRIAL PRODUCTION OF BIO-FERTILISERS**  
19-12-2020 To 30-12-2020

SN	Date	Topic	Resource Person
1	19-12-2020	Introduction to nano particle	Mrs. Monalisha Pradhan
2	21-12-2020	Applications of silver nanoparticles	Mrs. Monalisha Pradhan
3	22-12-2020	Uses of silver nanoparticles in biomedical sciences	Mrs. Monalisha Pradhan
4	23-12-2020	Antiviral activity	Mrs. Monalisha Pradhan
5	24-12-2020	Antifungal activity	Mrs. Monalisha Pradhan
6	25-12-2020	Antibacterial activity	Mrs. Monalisha Pradhan
7	26-12-2020	Antifouling action	Mrs. Monalisha Pradhan
8	28-12-2020	Antibiofilm activity	Mrs. Monalisha Pradhan
9	29-12-2020	Hands on Session	Mrs. Monalisha Pradhan
10	30-12-2020	Hands on Session	Mrs. Monalisha Pradhan

  
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## PROGRAM REPORT

31-12-2020

**Name of the Event:** A Two Week Add-On Program on **INDUSTRIAL PRODUCTION OF BIO-FERTILISERS**

**Date:** 19-12-2020 To 30-12-2020

**Resource Person:** **Mrs. Monalisha Pradhan**  
Lecturer,  
Dept. of Biotechnology, MSB, Bhubaneswar.  
Contact Number: 8917697386

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

**Number of students attended:** 39

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

MITS school of Biotechnology, Bhubaneswar, organized a two week add-on program on **INDUSTRIAL PRODUCTION OF BIO-FERTILISERS** for MSc-Applied Microbiology students by the resource person **Mrs. Monalisha Pradhan**. This program is designed to provide participants with a comprehensive understanding of the industrial production of bio-fertilizers. Bio-fertilizers are essential in sustainable agriculture as they enhance soil fertility and promote eco-friendly farming practices. This program aims to equip participants with the knowledge and practical skills required to establish and manage a bio-fertilizer production unit. Totally 39 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. **Understanding Bio-Fertilizers:** Participants will gain insights into the different types of bio-fertilizers, their significance in modern agriculture, and how they contribute to sustainable farming.
2. **Production Processes:** Participants will learn the step-by-step process of bio-fertilizer production, including selecting suitable strains, fermentation techniques, formulation, and quality control.
3. **Regulatory Compliance:** Understand the regulatory and environmental compliance requirements for bio-fertilizer production.

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### Learning Outcomes:

**Learning Outcomes:**

1. **Bio-Fertilizer Production Skills:** Participants will have a deep understanding of the production process, including strain selection, fermentation, formulation, and quality control.
2. **Infrastructure and Equipment Knowledge:** They will know the infrastructure and equipment necessary for bio-fertilizer production and storage.
3. **Market Awareness:** Participants will understand market dynamics, pricing strategies, and distribution channels for bio-fertilizers.



A Two Week Add-On Program on **INDUSTRIAL PRODUCTION OF BIO-FERTILISERS**,  
19-12-2020 To 30-12-2020, Mrs. Monalisha Pradhan.

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.

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



## *Certificate*

The MITS School of Biotechnology hereby certifies that

**ANKITA JENA**  
MSC-AMB-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**INDUSTRIAL PRODUCTION OF BIO-FERTILISERS**  
19-12-2020 To 30-12-2020

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**ANKITA MEHER**  
MSC-AMB-2nd Year

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## *Certificate*

The MITS School of Biotechnology hereby certifies that

**BARSARANI DEVI**  
MSC-AMB-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
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The MITS School of Biotechnology hereby certifies that

**BISHAL SINGHA**  
MSC-AMB-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**INDUSTRIAL PRODUCTION OF BIO-FERTILISERS**  
19-12-2020 To 30-12-2020

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## *Certificate*

The MITS School of Biotechnology hereby certifies that

**DEBASMITA ROY**  
MSC-AMB-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
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19-12-2020 To 30-12-2020

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## *Certificate*

The MITS School of Biotechnology hereby certifies that

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

has successfully completed  
A Two Week Add-On Programme On  
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19-12-2020 To 30-12-2020

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## *Certificate*

The MITS School of Biotechnology hereby certifies that

**IPSITA BANARJEE**  
MSC-AMB-2nd Year

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19-12-2020 To 30-12-2020

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## *Certificate*

The MITS School of Biotechnology hereby certifies that

**P. MANISHA**  
MSC-AMB-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
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19-12-2020 To 30-12-2020

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## *Certificate*

The MITS School of Biotechnology hereby certifies that

**S K SUNSUYA**  
MSC-AMB-2nd Year

has successfully completed  
A Two Week Add-On Programme On  
**INDUSTRIAL PRODUCTION OF BIO-FERTILISERS**  
19-12-2020 To 30-12-2020

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The MITS School of Biotechnology hereby certifies that

**SWETA DASH**  
MSC-AMB-2nd Year

has successfully completed  
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19-12-2020 To 30-12-2020

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