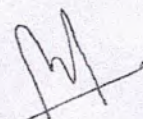


Hindustan College of Science & Technology, Farah, Mathura  
Department of Biotechnology

Date: 02.02.2020

Notice

All the students of Department of Biotechnology are hereby informed that the registration for value added course "Nature Inspired Engineering (VBT1903)" will be started from 04<sup>th</sup> Feb 2020 and the last date for registration is 06<sup>th</sup> Feb 2020. **The regular classes for value added course will be started from 08<sup>th</sup> Feb 2020.** All of you are advised to register yourself timely.



HOD, Biotechnology

Head  
Department of Biotechnology  
Hindustan College of Science & Technology  
Farah, Mathura



Director  
Hindustan College of  
Science & Technology  
FARAH (MATHURA)



**HINDUSTAN COLLEGE OF SCIENCE & TECHNOLOGY**  
**FARAH, MATHURA**



**DEPARTMENT OF BIOTECHNOLOGY**

*Value Added Course*  
*VBT1903 - Nature Inspired Engineering*

*8<sup>th</sup> Feb – 4<sup>th</sup> May, 2020 - Every Saturday: 10:00 AM – 12:00 PM*

*Students From Any Branch Can Join the Course*



**By**

**Dr. Ajay Kumar Sharma**  
**Associate Professor, Department of Biotechnology**

**Research interests: Application of nature inspired concepts in  
engineering and innovation**

*Handwritten signature of Dr. Ajay Kumar Sharma*  
**Head**  
**Dept. of Bio Technology**  
**Hindustan College of Science & Technology**  
**Farah, Mathura**

**Prerequisites: Basic interest in Natural phenomenon and good observational skills.**

**Registration Dates**  
**4<sup>th</sup> – 6<sup>th</sup> Feb, 2020**

For Registration: Please contact  
Mr. Raj Kumar, Office Staff

*Handwritten signature of Director*  
**Director**  
**Hindustan College of**  
**Science & Technology**  
**FARAH (MATHURA)**





**DEPARTMENT OF BIOTECHNOLOGY**

*Value Added Course*  
**VBT1903 - Nature Inspired Engineering**

**8<sup>th</sup> Feb – 4<sup>th</sup> May, 2020 - Every Saturday: 10:00 AM – 12:00 PM**

**Course Objectives**

1. Understand the fundamentals of nature-inspired engineering.
2. Explore various principles and strategies derived from nature for engineering design and problem-solving.
3. Analyze and evaluate real-world case studies of nature-inspired engineering solutions.
4. Develop critical thinking and creativity to apply nature-inspired principles in engineering projects.
5. Foster an understanding of sustainability and ethical considerations in engineering practices.

**Course Syllabus**

Units	Details	Course Out comes
1	Introduction to Nature-Inspired Engineering: Definition and scope of nature-inspired engineering, Historical overview and notable examples of nature-inspired engineering, Benefits and challenges of nature-inspired approaches, Case studies illustrating successful applications of nature-inspired engineering	CO1
2	Principles of Biomimicry: Introduction to biomimicry and its relevance in engineering, Fundamental principles of biomimetic design, Analysis of biological systems for engineering inspiration, Biomimetic materials and structures in engineering applications	CO2
3	Biomaterials and Bioinspired Materials: Introduction to biomaterials and their properties, Bioinspired materials: hierarchical structures and functional properties, Design and fabrication of bioinspired materials for engineering applications	CO3
4	Nature-Inspired Energy Systems: Energy harvesting from nature: solar, wind, and tidal energy, Bio-inspired energy conversion and storage systems, Biomimetic approaches for energy-efficient engineering	CO4
5	Sustainability and Ethics in Nature-Inspired Engineering: Environmental sustainability in engineering design, Ethical considerations in nature-inspired engineering, Social impact assessment	CO5

**Prerequisites: Basic interest in Natural phenomenon and good observational skills.**

*[Signature]*  
Director  
Hindustan College of  
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FARAH (MATHURA)

*[Signature]*  
Head  
Dept. of Bio Technology  
Hindustan College of Science & Technology  
Farah, Mathura



DEPARTMENT OF BIOTECHNOLOGY

*Value Added Course*  
**VBT1903 - Nature Inspired Engineering**

**8<sup>th</sup> Feb – 4<sup>th</sup> May, 2020 - Every Saturday: 10:00 AM – 12:00 PM**

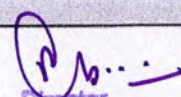
**Course Outcomes**

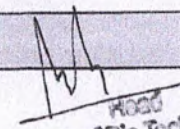
- CO1 *Understand the scope, benefits, challenges, and successful applications of nature-inspired engineering.*
- CO2 *Apply fundamental principles of biomimetic design and analyze biological systems for engineering inspiration.*
- CO3 *Learn the approaches used in bioinspired materials with hierarchical structures and functional properties.*
- CO4 *Utilize biomimetic approaches for energy-efficient engineering and energy conversion/storage systems.*
- CO5 *Incorporate environmental sustainability and ethical considerations in nature-inspired engineering practices.*

**CO-PO Mapping**

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1		1	1									
CO2	2	2	3	2					1	1		
CO3			3	1	1				1			
CO4	2	2	3	2					1	1		
CO5			2			2	3	3				
Average	2	1.67	2.4	1.67	1	2	3	3	1	1		

**Evaluation Criteria: Class participation, engagement in discussions, quizzes, assignments, group projects, presentations**

  
Director  
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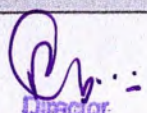
  
Head  
Dept. of Bio Technology  
Hindustan College of Science & Technology  
Farah, Mathura

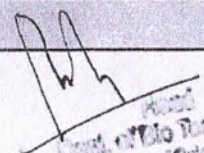


**8<sup>th</sup> Feb – 4<sup>th</sup> May, 2020 - Every Saturday: 10:00 AM – 12:00 PM**

**Program Schedule**

Session	Date	Time	No. of Hours	Session Topic	Resource Person
1	08-02-2020	10:00 AM - 12:00 PM	2	Definition and scope of nature-inspired engineering	Dr. Ajay Kumar Sharma
2	07-03-2020	10:00 AM - 12:00 PM	2	Historical overview and notable examples of nature-inspired engineering	Dr. Ajay Kumar Sharma
3	14-03-2020	10:00 AM - 12:00 PM	2	Introduction to biomimicry and its relevance in engineering	Dr. Ajay Kumar Sharma
4	28-03-2020	10:00 AM - 12:00 PM	2	Fundamental principles of biomimetic design	Dr. Ajay Kumar Sharma
5	04-04-2020	10:00 AM - 12:00 PM	2	Introduction to biomaterials and their properties	Dr. Ajay Kumar Sharma
6	11-04-2020	10:00 AM - 12:00 PM	2	Bioinspired materials: hierarchical structures and functional properties	Dr. Ajay Kumar Sharma
7	18-04-2020	10:00 AM - 12:00 PM	2	Design and fabrication of bioinspired materials	Dr. Ajay Kumar Sharma
8	27-04-2020	10:00 AM - 12:00 PM	2	Energy harvesting from nature: solar, wind, and tidal energy	Dr. Ajay Kumar Sharma
9	28-04-2020	10:00 AM - 12:00 PM	2	Bio-inspired energy conversion and storage systems	Dr. Ajay Kumar Sharma
10	29-04-2020	10:00 AM - 12:00 PM	2	Environmental sustainability in engineering design	Dr. Ajay Kumar Sharma
11	30-04-2020	10:00 AM - 12:00 PM	2	Ethical considerations in nature-inspired engineering	Dr. Ajay Kumar Sharma
12	01-05-2020	10:00 AM - 5:00 PM	6	Hands-on projects applying nature-inspired engineering principles,	Dr. Ajay Kumar Sharma
13	02-05-2020	10:00 AM - 5:00 PM	6	Design and prototyping of nature-inspired solutions and presentations	Dr. Ajay Kumar Sharma
14	04-05-2020	10:00 AM - 12:00 PM	2	Design and prototyping of nature- continue .....	Dr. Ajay Kumar Sharma
<b>Total number of hours covered</b>			<b>36</b>		

  
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Farah, Mathura



## Department OF Biotechnology Engineering

### CLASS TIME TABLE (Tentative)

Effective From: 03/02/2020

SESSION: 2019-20		ROOM NO : 304					Class Teacher : Ms Shivi Sharma		
YEAR/SEM-SEC: 3rd/VI							Counsellor : Mr. Vipin Kumar		
Time / Day	I	II	III	IV	V	VI	VII	VIII	
MONDAY	10:10 - 11:00 BP Engg. VK	11:00 - 11:50 BI-II SS	11:50 - 12:40 FBL SS	12:40 - 01:30 PBL APC	01:30 - 02:20	02:20 - 03:10 FBL Lab (B2)/ BP Engg. Lab (B1)	03:10 - 04:00 IM	04:00 - 04:50 DK	
TUESDAY	BP Engg. VK	PDB			FBL SS	SS/ VK	DK		
WEDNESDAY	BP Engg. VK	BI-II SS	BP Engg. VK	FBL SS	LUNCH BREAK	IS	FBL Lab (B1) / BP Engg. LAB (B2)		
THURSDAY	FBL (T) SS	IM DK	SKILL DEVE. APC	BI-II SS		AG	SS/ VK		
FRIDAY	FBL SS	SKILL DEVE APC	SKILL DEVE APC	IS AKS		PDB		IM	
SATURDAY	Value Added Course-""Nature Inspired Engineering (VBT1903)		IS	PBL		IS	PBL	PBL	
	AKS		AG	APC		AG	APC	APC	
							IM	BI-II LAB (B2)/ PBL LAB (B1)	
							DK	SS/ APC	
							BI-II LAB (B1)/ PBL Lab (B2)		BI-II
							SS/ APC		SS

#### Theory

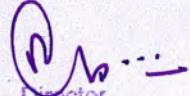
1	Subject Code	Name of the Subject	Abrv. Used	Name of the Faculty Member	Faculty code/
1	RAS 601	Industrial Management	IM	Mr. Dinesh Kumar (8630450043)	DK
2	RAS 602	Industrial Sociology	IS	Dr. Archana Gautam (8979245929)	AG
3	RBT 601	Bioprocess Engineering	BP Engg.	Mr. Vipin Kumar (9454712850)	VK
4	RBT 602	Plant Biotechnology	PBL	Dr. Arun Prasad Chopra(9568006057)	APC
5	RBT 603	Bioinformatics-II	BI-II	Ms. Shivi Sharma (9410224170)	SS
6	RBT 063	Food Biotechnology	AnBt.	Ms. Shivi Sharma (9410224170)	SS
7	VBT-1903	Value Added Course-""Nature Inspired Engineering	Skill Development	Dr. Ajay Kumar Sharma	APC

#### Practicals

1	Bioprocess Engineering lab	RBT 651	BP Engg. LAB	Mr. Vipin Kumar	VK
2	Plant Biotechnology lab	RBT 652	PBL LAB	Dr. Arun Prasad Chopra	APC
3	Bioinformatics-II	RBT 653	BI-II LAB	Ms Shivi Sharma	SS
4	Food Biotechnology lab	RBT 654	FBL	Ms. Shivi Sharma	SS

Time Table Incharge: Ms. Shivi Sharma, shivi.sharma.hest@sgei.org, mob. No. 9410224170

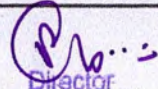
HOD: Dr. Ajay Kumar Sharma

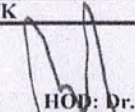
  
 Director  
**Hindustan College of  
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 FARAH (MATHURA)

Head  
**Dept. of Bio Technology**  
**Hindustan College of Science & Technology**  
 Farah, Mathura



Department of Biotechnology Engineering								
CLASS TIME TABLE (Tentative)					Effective from: 03/02/2020			
SESSION:2019-20						Class Teacher : Dr. Ajay Kumar Sharma		
YEAR/SEM-SEC:2nd/IV			ROOM.NO : 303			Counsellor : Ms Shivi Sharma		
Time / Day	I 10:10 - 11:00	II 11:00 - 11:50	III 11:50 - 12:40	IV 12:40 - 01:30	V 01:30 - 02:20	VI 02:20 - 03:10	VII 03:10 - 04:00	VIII 04:00 - 04:50
MONDAY	TC KD	MATH-V MPS	BP-I RP	BP-I (T) RP	LUNCH BREAK	PDB		CSS BP
TUESDAY	BP-I RP	PDB		MATH-V MPS		BP-I RP	GMB AKS	TC KD
WEDNESDAY	GMB AKS	TC KD	MATH-V MPS	EE VK		BP-I LAB CHEMICAL DEPT.		CSS BP
THURSDAY	EE VK	GMB AKS	CSS BP	BP-I RP		GMB (T) AKS	TC KD	EE VK
FRIDAY	MATH-V MPS	BP-I RP	GMB AKS	CSS BP		EE VK	EE VK (T)	BP-I RP
SATURDAY	Value Added Course-""Nature Inspired Engineering AKS		GMB AKS			EE LAB VK		MATH-V (T) MPS
Subject S.NO.	Subject code	Name of Subject	Abrv. Used	Name of the Faculty Member		Faculty code	Faculty mob. No	
1	KAS 401	Technical Communication	TC	Dr. Keshav Dev		KD	9412558688	
2	KBT 401	Bioprocess Engineering-I	BP-I	Mr. Rajiv Pandey		RP	9414466762	
3	KBT 402	Genetics & Molecular Biology	GMB	Dr. Ajay Kumar Sharma		AKS	9412104179	
4	KBT 403	Enzyme Engineering	EE	Vipin kumar	VK	9454712850		
5	KAS 404	Math V	Math	Dr. M.P. Singh	MPS			
6	KNC 401	Computer System Security	CSS	Mrs. Bhu Prabha	BP	9953521909		
7	VBT-1903	Value Added Course-""Nature Inspired Engineering	Skill Development	Dr. Ajay Kumar Sharma	AKS	9412104179		
PRACTICALS								
	Subject code	Name of Subject	Abrv. Used	Name of the Faculty Member	Faculty code	Faculty mob. No		
1	KBT 451	Bioprocess Engg-I. LAB	BP LAB	Mr. Sandeep Verma	SV	7895308967		
2	KBT 452	Genetic & Molecular Biology LAB	GMB LAB	Dr. Ajay Kumar Sharma	AKS	9412104179		
3	KBT 453	Enzyme Engineering LAB	EE LAB	Mr. Vipin Kumar	VK	-9454712850		
TIME TABLE INCHARGE:		Ms. Shivi Sharma, shivi.sharma.hcst@sgei.org, mob. No. 9410224170			HOD: Dr. Ajay Kumar Sharma			

  
 Director  
**Hindustan College of  
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 Head  
**Dept. of Bio Technology**  
**Hindustan College of Science & Technology**  
 Farah, Mathura



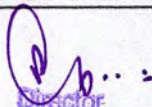
# Hindustan College of Science & Technology

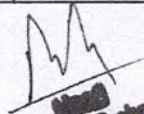
## Department of Biotechnology Engineering

### Value Added Course - Registration List

Course Name: Nature Inspired Engineering Course Code: VBT1903

Session 2019-20			From February, 2020 to May, 2020	
Sr. No.	Roll No.	Name	Department	Semester
1	1806454001	AMANJIT YADAV	Biotechnology	IV
2	1806454002	AMIT KUMAR	Biotechnology	IV
3	1806454003	AMIT MISHRA	Biotechnology	IV
4	1806454005	ARPIT BAGHEL	Biotechnology	IV
5	1806454006	BHAVYA SINGH	Biotechnology	IV
6	1806454007	Divya Sharma	Biotechnology	IV
7	1806454009	JYOTI YADAV	Biotechnology	IV
8	1806454010	LIVESH RAJPUT	Biotechnology	IV
9	1806454011	MANVI GUPTA	Biotechnology	IV
10	1806454012	MOHAMMAD SERAJ	Biotechnology	IV
11	1806454013	MONIKA SINGH	Biotechnology	IV
12	1806454014	MONU TOMAR	Biotechnology	IV
13	1806454015	POOJA	Biotechnology	IV
14	1806454016	POOJA MISHRA	Biotechnology	IV
15	1806454017	PRATIMA YADAV	Biotechnology	IV
16	1806454018	PRIYANSHI CHAUHAN	Biotechnology	IV
17	1806454019	SANJANA SHARMA	Biotechnology	IV
18	1806454020	SHAMBHAVI DUBEY	Biotechnology	IV
19	1806454021	SHIVAM SINGH	Biotechnology	IV
20	1806454022	SHIVANGI CHAUHAN	Biotechnology	IV
21	1806454023	SOUMYA SRIVASTAVA	Biotechnology	IV
22	1806454024	STUTI TIWARI	Biotechnology	IV
23	1806454025	VAISHNAVI GUPTA	Biotechnology	IV
24	1806454026	YOGESH CHAUDHARY	Biotechnology	IV
25	1706454003	AMIT YADAV	Biotechnology	VI
26	1706454004	ANKITA SINGH	Biotechnology	VI
27	1706454005	ARCHANA SINGH	Biotechnology	VI
28	1706454006	ARCHI SINGHAL	Biotechnology	VI
29	1706454007	CHESTA SHANDILYA	Biotechnology	VI
30	1706454008	DEEPANSHI AGRAWAL	Biotechnology	VI
31	1706454009	HARSHITA BHOJWANI	Biotechnology	VI
32	1706454010	INDERMEET SINGH BAKSHI	Biotechnology	VI
33	1706454011	KRITIKA KUNDALIYA	Biotechnology	VI
34	1706454012	MANVI VARSHNEY	Biotechnology	VI
35	1706454013	MOHARPAL SINGH	Biotechnology	VI
36	1706454014	NAVNEET KUMAR TIWARI	Biotechnology	VI
37	1706454015	NEHA AGRAWAL	Biotechnology	VI
38	1706454016	NITISHA GOYAL	Biotechnology	VI

  
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FARAH (MATHURA)

  
Head  
Dept. of Biotechnology  
Hindustan College of Science & Technology  
Farah, Mathura



39	1706454017	OSHIN PAL	Biotechnology	VI
40	1706454018	PRADUMAN SINGH	Biotechnology	VI
41	1706454019	PREM NARAYAN MISHRA	Biotechnology	VI
42	1706454020	PURVI MALHOTRA	Biotechnology	VI
43	1706454021	RAUNAK KAPOOR	Biotechnology	VI
44	1706454022	RAVIN KUMAR	Biotechnology	VI
45	1706454023	SAMIKSHA GUPTA	Biotechnology	VI
46	1706454024	SAMRIDDHI SINGH	Biotechnology	VI
47	1706454026	SHEFALI MAHESHWARI	Biotechnology	VI
48	1706454027	SHILPA SHARMA	Biotechnology	VI
49	1706454028	SHIVANSH RAI	Biotechnology	VI
50	1706454029	SMRITI BHARWAJ	Biotechnology	VI
51	1706454030	SNEHA KAUSHAL	Biotechnology	VI
52	1706454031	SUNNY YADAV	Biotechnology	VI
53	1706454032	TANYA PACHORI	Biotechnology	VI
54	1706454033	TRAPTI	Biotechnology	VI
55	1706454035	UPENDRA CHAUDHARY	Biotechnology	VI
56	1706454036	VANSHIKA GAIHAR	Biotechnology	VI
57	1706454037	VARUN KULSHRESTHA	Biotechnology	VI
58	1706454038	VIDUSHI BHADORIA	Biotechnology	VI
59	1706454040	VRINDA SHUKLA	Biotechnology	VI

Total Registered Students = (59)

  
 Director  
 Hindustan College of  
 Science & Technology  
 FARAH (MATHURA)

  
 08/02/2020  
 Head  
 Dept. of Bio Technology  
 Hindustan College of Science & Technology  
 Farah, Mathura



# Hindustan College of Science & Technology

Department of Biotechnology Engineering

Value Added Course - Registration Form

Course Name: Nature Inspired Engineering

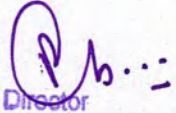
Course Code: VBT1903

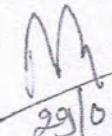
Session 2019-20 (Year-2020)

Session wise Attendance Sheet

S. No.	Roll No.	Name	SEM	Session wise Attendance Sheet															
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
				1-Feb	8-Feb	7-Mar	14-Mar	28-Mar	4-Apr	11-Apr	18-Apr	25-Apr	2-Apr	9-Apr	16-Apr	23-Apr	30-Apr	7-May	14-May
1	1806454001	Amanjit Yadav	IV	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
2	1806454002	Amit Kumar	IV	P	P	A	A	A	A	A	A	A	A	A	A	A	A	A	A
3	1806454003	Amit Mishra	IV	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
4	1806454005	Arpit Baghel	IV	P	P	P	P	(A)	P	P	P	P	P	P	P	P	P	P	P
5	1806454006	Bhavya Singh	IV	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
6	1806454007	Divya Sharma	IV	P	(A)	P	P	(A)	P	P	P	(A)	P	P	P	P	P	P	P
7	1806454009	Jyoti Yadav	IV	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
8	1806454010	Livesh Rajput	IV	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P
9	1806454011	Manvi Gupta	IV	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
10	1806454012	Mohammad Seraj	IV	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P
11	1806454013	Monika Singh	IV	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
12	1806454014	Monu Tomar	IV	P	A	P	P	P	P	P	P	P	P	A	P	P	P	P	P
13	1806454015	Pooja	IV	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
14	1806454016	Pooja Mishra	IV	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P
15	1806454017	Pratima Yadav	IV	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P
16	1806454018	Privanshi Chauhan	IV	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
17	1806454019	Sanjana Sharma	IV	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P
18	1806454020	Shambhavi Dubey	IV	P	P	P	(A)	P	P	P	P	P	P	P	A	P	P	P	P
19	1806454021	Shivam Singh	IV	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
20	1806454022	Shivangi Chauhan	IV	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
21	1806454023	Soumya Srivastava	IV	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
22	1806454024	Stuti Tiwari	IV	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
23	1806454025	Vaishnavi Gupta	IV	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
24	1806454026	Yogesh Chaudhary	IV	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
25	1706454003	Amit Yadav	VI	P	P	P	A	A	P	P	A	P	P	P	P	P	P	P	P
26	1706454004	Ankita Singh	VI	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P
27	1706454005	Archana Singh	VI	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
28	1706454006	Archi Singhal	VI	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
29	1706454007	Chesta Shandilva	VI	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P
30	1706454008	Deepanshi Agrawal	VI	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P
31	1706454009	Harshita Bhojwani	VI	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
32	1706454010	Indermeet Singh Bakshi	VI	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
33	1706454011	Kritika Kundaliva	VI	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
34	1706454012	Manvi Varshney	VI	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
35	1706454013	Moharpal Singh	VI	P	A	P	P	P	P	(A)	P	P	P	P	P	P	P	P	P
36	1706454014	Navneet Kumar Tiwari	VI	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P
37	1706454015	Neha Agrawal	VI	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P
38	1706454016	Nitisha Goyal	VI	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
39	1706454017	Oshin Pal	VI	P	P	P	P	P	(A)	P	P	P	P	P	P	P	P	P	P
40	1706454018	Praduman Singh	VI	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
41	1706454019	Prem Narayan Mishra	VI	P	P	P	P	P	P	P	P	(A)	P	P	P	P	P	P	P
42	1706454020	Purvi Malhotra	VI	P	P	P	P	P	P	(A)	P	P	P	P	P	P	P	P	P
43	1706454021	Raunak Kapoor	VI	P	P	P	P	(A)	(A)	(A)	(A)	(A)	(A)	(A)	(A)	(A)	(A)	(A)	(A)
44	1706454022	Ravin Kumar	VI	P	P	P	P	P	P	P	P	(A)	P	P	P	P	P	P	P
45	1706454023	Samiksha Gupta	VI	P	P	A	P	P	A	P	P	P	P	P	P	P	P	P	P
46	1706454024	Samridhhi Singh	VI	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P
47	1706454026	Shefali Maheshwari	VI	P	P	P	P	A	P	P	P	P	P	A	P	P	P	P	P
48	1706454027	Shilpa Sharma	VI	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P
49	1706454028	Shivansh Rai	VI	P	P	P	P	A	P	P	A	P	P	A	P	P	P	P	P
50	1706454029	Smriti Bharvaj	VI	P	P	P	P	P	P	P	P	(A)	P	P	P	P	P	P	P
51	1706454030	Sneha Kaushal	VI	A	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P
52	1706454031	Sunny Yadav	VI	P	P	P	P	P	P	P	A	P	P	P	A	P	P	P	P
53	1706454032	Tanya Pachori	VI	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P
54	1706454033	Trapti	VI	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
55	1706454035	Upendra Chaudhary	VI	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
56	1706454036	Vanshika Gaihar	VI	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P
57	1706454037	Varun Kulshrestha	VI	P	P	A	P	P	P	P	P	P	P	A	P	P	P	P	P
58	1706454038	Vidushi Bhadoria	VI	A	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P
59	1706454040	Vrinda Shukla	VI	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P

COVID-19 affected classes  
ONLINE CLASSES

  
 Director  
 Hindustan College of  
 Science & Technology  
 (MATHURA)

  
 29/06/2020  
 Head  
 Dept. of Bio Tech  
 Hindustan College of  
 Science & Technology  
 Mathura





HINDUSTAN COLLEGE OF SCIENCE & TECHNOLOGY  
FARAH, MATHURA



*Certificate of Completion*

*Department of Biotechnology  
Academic Session 2019-20*

*This is to certify that Ms. Bhavya Singh, Roll No: 1806454006 of Course: B. Tech. Biotechnology, IV semester has successfully completed 36 hours Value Added Course titled "Nature Inspired Engineering" (Course code: VBT1903).*

*Course Coordinator & Head of Department*

*Head  
Dept. of Bio Technology  
Hindustan College of Science & Technology  
Farah, Mathura*

*Director, HCST*

*Director  
Hindustan College of  
Science & Technology  
FARAH (MATHURA)*

*Director  
Hindustan College of  
Science & Technology  
FARAH (MATHURA)*





HINDUSTAN COLLEGE OF SCIENCE & TECHNOLOGY  
FARAH, MATHURA



*Certificate of Completion*

**Department of Biotechnology**  
**Academic Session 2019-20**

***This is to certify that Ms. Manvi Varshney, Roll No: 1706454012 of Course: B. Tech. Biotechnology, VI semester has successfully completed 36 hours Value Added Course titled "Nature Inspired Engineering" (Course code: VBT1903).***

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