

#### CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY

(Autonomous)

Kokapet (Village), Gandipet, Hyderabad, Telangana – 500075 www.cbit.ac.in

Criteria I:	CURRICULAR ASPECTS			
Key Indicator – 1.3	Curriculum Enrichment			
Metric 1.3.3 Average Percentage of students enrolled in the courses under 1.3.2				
LIST OF ENROLLED STUDENTS IN VALUE ADDED COURSES				

		2020-	21				
S.N O	Name of the value added courses (with 30 or more contact hours)offered	Course Code (if any)	Year of offering	No. of times offered during the same year	Duration of course in Hours	Number of students enrolled in the year	Number of Students completing the course in the year
3	Fresh man course	CBIT/20MEV09	20-21	1	300	356	356
4	Indian Constitution		20-21	1	400	508	508
5	Ancient Indian Knowledge	CBIT/20EEV02	20-21	1	100	124	124
6	Environmental science		20-21	1	300	383	383
7	Wild life Ecology	CBIT/20BTV026	2021	1	30	7	7
8	Bio interface Engineering	CBIT/20BT V073	2021	1	30	1	1
9	Biomechanics of Joints and Orthopaedic implants	CBIT/20BT V035	2021	1	30	1	1
10	Biomedical Nanotechnology	CBIT/20BT V007	2021	1	30	2	2
11	Cell culture technologies	CBIT/20BT V038	2021	1	30	5	5
12	Computer Aided drug design	CBIT/20BT V032	2021	1	30	1	1
13	Conservation Economics	16CBIT/20BT V016	2021	1	30	11	11
14	Drug delivery principles and Engineering	CBIT/20BT V033	2021	1	30	1	1
15	Ecology and Environment	CBIT/20BT V027	2021	1	30	2	2
16	Forest and their Management	CBIT/20BT V050	2021	1	30	10	10
17	Human Molecular Genetics	CBIT/20BT V047	2021	1	30	4	4

18	Introduction to Mechanobiology	CBIT/20BT V006	2021	1	30	1	1
19	Introduction to Proteogenomics	CBIT/20BT V030	2021	1	30	5	5
20	Introduction to proteomics	CBIT/20BT V031	2021	1	30	1	1
21	Legal and regulatory issues in biotechnology	CBIT/20BT V044	2021	1	30	1	1
22	Neuroscience of Human Movements	CBIT/20BT V024	2021	1	30	1	1
23	Organic farming for sustainable Agriculture production	CBIT/20BT V005	2021	1	30	1	1
24	Patent law for engineers and scientists	CBIT/20BT V043	2021	1	30	3	3
25	Principle and Practices of process Equipment and plant design	CBIT/20BT V042	2021	1	30	2	2
26	Structural Biology	CBIT/20BT V072	2021	1	30	8	8
27	Functional Genomics	CBIT/20BT V034	2022	1	30	1	1
28	Technologies for clean and Renewable energy production	CBIT/20BT V041	2021	1	30	1	1
29	Web development	CBIT/20ITV001	2020-21	1	30	1	1
30	Algorithmic toolbox	CBIT/20ITV002	2020-21	1	30	1	1
31	Android app development	CBIT/20ITV003	2020-21	1	30	1	1
32	Python Bootcamp	CBIT/20ITV004	2020-21	1	30	1	1
33	Basics of Machine Learning	CBIT/20ITV005	2020-21	1	30	2	2
34	C & C++	CBIT/20ITV006	2020-21	1	30	2	2
35	Functions in Python	CBIT/20ITV007	2020-21	1	30	1	1
36	Cyber security	CBIT/20ITV008	2020-21	1	30	2	2
37	Responsive web design	CBIT/20ITV009	2020-2021	1	30	1	1
38	Programming for Everybody (Getting Started with Python)	CBIT/20ITV010	2020-2021	1	30	10	10
39	Crash course on python	CBIT/20ITV011	2020-2021	1	30	7	7
40	Introduction to software product management	CBIT/20ITV012	2020-2021	1	30	1	1
41	Al for every one	CBIT/20ITV013	2020-2021	1	30	2	2
42	Getting started in google analytics	CBIT/20ITV014	2020-2021	1	30	2	2
43	Using python access the web data	CBIT/20ITV015	2020-2021	1	30	3	3
44	Python for data structures	CBIT/20ITV016	2020-2021	1	30	3	3
45	Deep Learning using python	CBIT/20ITV017	2020-2021	1	30	1	1

The fundamentals of digital marketing	46	Google IT support	CBIT/20ITV018	2020-2021	1	30	1	1
Attacks	47	The fundamentals of digital marketing	CBIT/20ITV019	2020-2021	1	30	1	1
Artificial Intelligence CBIT/20ITV022 2020-2021 1 30 1 1 1 1   The Joy of Computing using Python CBIT/20ITV024 2020-2021 1 30 6 6 6   The Joy of Computing using Python CBIT/20ITV024 2020-2021 1 30 6 6 6   Programming in java CBIT/20ITV025 2020-2021 1 30 1 1   Shapped State With Diango and React CBIT/20ITV026 2020-2021 1 30 1 1   The Joy of Computing using Python CBIT/20ITV026 2020-2021 1 30 1 1   Shapped State With Diango and React CBIT/20ITV027 2020-2021 1 30 1 1   The Joy of Computer networking CBIT/20ITV028 2020-2021 1 30 1 1   The Dits and bytes of computer networking CBIT/20ITV028 2020-2021 1 30 5 5 5   Shapped State With Diango and IT infratructue services CBIT/20ITV029 2020-2021 1 30 5 5 5   COPERATING STATEM AND	48	· · · · · · · · · · · · · · · · · · ·	CBIT/20ITV020	2020-2021	1	30	1	1
Machine Learning	49	IT Fundamentals for Cybersecurity	CBIT/20ITV021	2020-2021	1	30	3	3
The Joy of Computing using Python  CBIT/20ITV024  2020-2021  1  30  6  6  53  Programming in java  CBIT/20ITV025  2020-2021  1  30  1  1  54  Programming with python  CBIT/20ITV026  2020-2021  1  30  1  1  55  Full Stack with Django and React  CBIT/20ITV028  CBIT/20ITV028  CBIT/20ITV028  CBIT/20ITV029  2020-2021  1  30  1  1  55  Full Stack with Django and React  CBIT/20ITV028  CBIT/20ITV028  CBIT/20ITV029  2020-2021  1  30  1  1  57  The bits and bytes of computer networking  CBIT/20ITV029  CBIT/20ITV030  CBIT/20ITV030  CBIT/20ITV031  CBIT/20ITV031  CBIT/20ITV031  CBIT/20ITV032  CBIT/20ITV032  CBIT/20ITV033  CBIT/20ITV034  CBIT/20ITV035  CBIT/20ITV036  CBIT/20ITV037  CBIT/20ITV038  CBIT/20ITV038  CBIT/20ITV039  CBIT	50	Artificial Intelligence	CBIT/20ITV022	2020-2021	1	30	1	1
Programming in java   CBIT/20ITV025   2020-2021   1   30   1   1	51	Machine Learning	CBIT/20ITV023	2020-2021	1	30	3	3
54         Programming with python         CBIT/20ITV026         2020-2021         1         30         2         2           55         Full Stack with Django and React         CBIT/20ITV027         2020-2021         1         30         1         1           56         Introduction to machine learning         CBIT/20ITV028         2020-2021         1         30         1         1           57         The bits and bytes of computer networking         CBIT/20ITV029         2020-2021         1         30         5         5           58         Operating systems and you         CBIT/20ITV030         2020-2021         1         30         1         1           59         System adminstration and IT infratructue services         CBIT/20ITV031         2020-2021         1         30         1         1           60         IT Security         CBIT/20ITV032         2020-2021         1         30         1         1           61         Advanced Styling with Responsive Design         CBIT/20ITV033         2020-2021         1         30         3         3           62         Introduction to HTML5         CBIT/20ITV034         2020-2021         1         30         3         3           63         In	52	The Joy of Computing using Python	CBIT/20ITV024	2020-2021	1	30	6	6
Full Stack with Django and React   CBIT/20ITV027   2020-2021   1   30   1   1   1   1   1   1   1   1   1	53	Programming in java	CBIT/20ITV025	2020-2021	1	30	1	1
Introduction to machine learning   CBIT/20ITV028   2020-2021   1   30   1   1   1   1   1   1   1   1   30   5   5   5   5   5   5   5   5   5	54	Programming with python	CBIT/20ITV026	2020-2021	1	30	2	2
57         The bits and bytes of computer networking         CBIT/20ITV029         2020-2021         1         30         5         5           58         Operating systems and you         CBIT/20ITV030         2020-2021         1         30         1         1           59         System adminstration and IT infratructue services         CBIT/20ITV031         2020-2021         1         30         1         1           60         IT Security         CBIT/20ITV032         2020-2021         1         30         1         1           61         Advanced Styling with Responsive Design         CBIT/20ITV033         2020-2021         1         30         3         3           62         Introduction to HTML5         CBIT/20ITV034         2020-2021         1         30         3         3           63         Interactivity with javascript         CBIT/20ITV035         2020-2021         1         30         7         7           64         Java and python         CBIT/20ITV036         2020-2021         1         30         1         1           65         Introduction to C# programming and unity         CBIT/20ITV036         2020-2021         1         30         1         1           66         Full	55	Full Stack with Django and React	CBIT/20ITV027	2020-2021	1	30	1	1
58         Operating systems and you         CBIT/20ITV030         2020-2021         1         30         1         1           59         System adminstration and IT infratructue services         CBIT/20ITV031         2020-2021         1         30         1         1           60         IT Security         CBIT/20ITV032         2020-2021         1         30         1         1           61         Advanced Styling with Responsive Design         CBIT/20ITV033         2020-2021         1         30         3         3           62         Introduction to HTML5         CBIT/20ITV034         2020-2021         1         30         3         3           63         Interactivity with javascript         CBIT/20ITV035         2020-2021         1         30         7         7           64         Java and python         CBIT/20ITV036         2020-2021         1         30         1         1           65         Introduction to C# programming and unity         CBIT/20ITV037         2020-2021         1         30         1         1           66         Full Stack Development         CBIT/20ITV038         2020-2021         1         30         1         1           67         Using python to interact	56	Introduction to machine learning	CBIT/20ITV028	2020-2021	1	30	1	1
59         System adminstration and IT infratructue services         CBIT/20ITV031         2020-2021         1         30         1         1           60         IT Security         CBIT/20ITV032         2020-2021         1         30         1         1           61         Advanced Styling with Responsive Design         CBIT/20ITV033         2020-2021         1         30         3         3           62         Introduction to HTML5         CBIT/20ITV034         2020-2021         1         30         3         3           63         Interactivity with javascript         CBIT/20ITV035         2020-2021         1         30         7         7           64         Java and python         CBIT/20ITV035         2020-2021         1         30         1         1           65         Introduction to C# programming and unity         CBIT/20ITV037         2020-2021         1         30         1         1           66         Full Stack Development         CBIT/20ITV038         2020-2021         1         30         1         1           67         Using python to interact with operating system         CBIT/20ITV039         2020-2021         1         30         1         1           68         Int	57	The bits and bytes of computer networking	CBIT/20ITV029	2020-2021	1	30	5	5
CBIT/20ITV032   2020-2021   1   30   1   1   1   1   1   1   1   1   1	58	Operating systems and you	CBIT/20ITV030	2020-2021	1	30	1	1
61         Advanced Styling with Responsive Design         CBIT/20ITV033         2020-2021         1         30         3         3           62         Introduction to HTML5         CBIT/20ITV034         2020-2021         1         30         3         3           63         Interactivity with javascript         CBIT/20ITV035         2020-2021         1         30         7         7           64         Java and python         CBIT/20ITV036         2020-2021         1         30         1         1           65         Introduction to C# programming and unity         CBIT/20ITV037         2020-2021         1         30         4         4           66         Full Stack Development         CBIT/20ITV038         2020-2021         1         30         1         1           67         Using python to interact with operating system         CBIT/20ITV039         2020-2021         1         30         1         1           68         Introduction to game development         CBIT/20ITV040         2020-2021         1         30         1         1           69         Getting started with AWS and machine learning         CBIT/20ITV041         2020-2021         1         30         1         1           70 <td>59</td> <td>System adminstration and IT infratructue services</td> <td>CBIT/20ITV031</td> <td>2020-2021</td> <td>1</td> <td>30</td> <td>1</td> <td>1</td>	59	System adminstration and IT infratructue services	CBIT/20ITV031	2020-2021	1	30	1	1
62         Introduction to HTML5         CBIT/20ITV034         2020-2021         1         30         3         3           63         Interactivity with javascript         CBIT/20ITV035         2020-2021         1         30         7         7           64         Java and python         CBIT/20ITV036         2020-2021         1         30         1         1           65         Introduction to C# programming and unity         CBIT/20ITV037         2020-2021         1         30         4         4           66         Full Stack Development         CBIT/20ITV038         2020-2021         1         30         1         1           67         Using python to interact with operating system         CBIT/20ITV038         2020-2021         1         30         1         1           68         Introduction to game development         CBIT/20ITV040         2020-2021         1         30         1         1           69         Getting started with AWS and machine learning         CBIT/20ITV041         2020-2021         1         30         1         1           70         Introduction to CSS3         CBIT/20ITV042         2020-2021         1         30         5         5           71         Front	60	IT Security	CBIT/20ITV032	2020-2021	1	30	1	1
Interactivity with javascript   CBIT/20ITV035   2020-2021   1   30   7   7	61	Advanced Styling with Responsive Design	CBIT/20ITV033	2020-2021	1	30	3	3
64         Java and python         CBIT/20ITV036         2020-2021         1         30         1         1           65         Introduction to C# programming and unity         CBIT/20ITV037         2020-2021         1         30         4         4           66         Full Stack Development         CBIT/20ITV038         2020-2021         1         30         1         1           67         Using python to interact with operating system         CBIT/20ITV039         2020-2021         1         30         1         1           68         Introduction to game development         CBIT/20ITV040         2020-2021         1         30         1         1           69         Getting started with AWS and machine learning         CBIT/20ITV041         2020-2021         1         30         1         1           70         Introduction to CSS3         CBIT/20ITV042         2020-2021         1         30         5         5           71         Front-End development with react         CBIT/20ITV043         2020-2021         1         30         1         1           72         Essential Mathematics for Machine Learning         NA         2020-2021         1         30         1         1           74	62	Introduction to HTML5	CBIT/20ITV034	2020-2021	1	30	3	3
65         Introduction to C# programming and unity         CBIT/20ITV037         2020-2021         1         30         4         4           66         Full Stack Development         CBIT/20ITV038         2020-2021         1         30         1         1           67         Using python to interact with operating system         CBIT/20ITV039         2020-2021         1         30         1         1           68         Introduction to game development         CBIT/20ITV040         2020-2021         1         30         1         1           69         Getting started with AWS and machine learning         CBIT/20ITV041         2020-2021         1         30         1         1           70         Introduction to CSS3         CBIT/20ITV042         2020-2021         1         30         5         5           71         Front-End development with react         CBIT/20ITV043         2020-2021         1         30         1         1           72         Essential Mathematics for Machine Learning         NA         2020-2021         1         30         1         1           73         Essential Datascience with R software-2         NA         2020-2021         1         30         1         1 <td< td=""><td>63</td><td>Interactivity with javascript</td><td>CBIT/20ITV035</td><td>2020-2021</td><td>1</td><td>30</td><td>7</td><td>7</td></td<>	63	Interactivity with javascript	CBIT/20ITV035	2020-2021	1	30	7	7
66         Full Stack Development         CBIT/20ITV038         2020-2021         1         30         1         1           67         Using python to interact with operating system         CBIT/20ITV039         2020-2021         1         30         1         1           68         Introduction to game development         CBIT/20ITV040         2020-2021         1         30         1         1           69         Getting started with AWS and machine learning         CBIT/20ITV041         2020-2021         1         30         1         1           70         Introduction to CSS3         CBIT/20ITV042         2020-2021         1         30         5         5           71         Front-End development with react         CBIT/20ITV043         2020-2021         1         30         1         1           72         Essential Mathematics for Machine Learning         NA         2020-2021         1         30         1         1           73         Essential Datascience with R software-2         NA         2020-2021         1         30         1         1           74         Advanced Graph Theory         NA         2020-2021         1         30         1         1	64	Java and python	CBIT/20ITV036	2020-2021	1	30	1	1
67         Using python to interact with operating system         CBIT/20ITV039         2020-2021         1         30         1         1           68         Introduction to game development         CBIT/20ITV040         2020-2021         1         30         1         1           69         Getting started with AWS and machine learning         CBIT/20ITV041         2020-2021         1         30         1         1           70         Introduction to CSS3         CBIT/20ITV042         2020-2021         1         30         5         5           71         Front-End development with react         CBIT/20ITV043         2020-2021         1         30         1         1           72         Essential Mathematics for Machine Learning         NA         2020-2021         1         30         1         1           73         Essential Datascience with R software-2         NA         2020-2021         1         30         1         1           74         Advanced Graph Theory         NA         2020-2021         1         30         1         1	65	Introduction to C# programming and unity	CBIT/20ITV037	2020-2021	1	30	4	4
68         Introduction to game development         CBIT/20ITV040         2020-2021         1         30         1         1           69         Getting started with AWS and machine learning         CBIT/20ITV041         2020-2021         1         30         1         1           70         Introduction to CSS3         CBIT/20ITV042         2020-2021         1         30         5         5           71         Front-End development with react         CBIT/20ITV043         2020-2021         1         30         1         1           72         Essential Mathematics for Machine Learning         NA         2020-2021         1         30         1         1           73         Essential Datascience with R software-2         NA         2020-2021         1         30         1         1           74         Advanced Graph Theory         NA         2020-2021         1         30         1         1	66	Full Stack Development	CBIT/20ITV038	2020-2021	1	30	1	1
69         Getting started with AWS and machine learning         CBIT/20ITV041         2020-2021         1         30         1         1           70         Introduction to CSS3         CBIT/20ITV042         2020-2021         1         30         5         5           71         Front-End development with react         CBIT/20ITV043         2020-2021         1         30         1         1           72         Essential Mathematics for Machine Learning         NA         2020-2021         1         30         1         1           73         Essential Datascience with R software-2         NA         2020-2021         1         30         1         1           74         Advanced Graph Theory         NA         2020-2021         1         30         1         1	67	Using python to interact with operating system	CBIT/20ITV039	2020-2021	1	30	1	1
70         Introduction to CSS3         CBIT/20ITV042         2020-2021         1         30         5         5           71         Front-End development with react         CBIT/20ITV043         2020-2021         1         30         1         1           72         Essential Mathematics for Machine Learning         NA         2020-2021         1         30         1         1           73         Essential Datascience with R software-2         NA         2020-2021         1         30         1         1           74         Advanced Graph Theory         NA         2020-2021         1         30         1         1	68	Introduction to game development	CBIT/20ITV040	2020-2021	1	30	1	1
71         Front-End development with react         CBIT/20ITV043         2020-2021         1         30         1         1           72         Essential Mathematics for Machine Learning         NA         2020-2021         1         30         1         1           73         Essential Datascience with R software-2         NA         2020-2021         1         30         1         1           74         Advanced Graph Theory         NA         2020-2021         1         30         1         1	69	Getting started with AWS and machine learning	CBIT/20ITV041	2020-2021	1	30	1	1
72       Essential Mathematics for Machine Learning       NA       2020-2021       1       30       1       1         73       Essential Datascience with R software-2       NA       2020-2021       1       30       1       1         74       Advanced Graph Theory       NA       2020-2021       1       30       1       1	70	Introduction to CSS3	CBIT/20ITV042	2020-2021	1	30	5	5
73         Essential Datascience with R software-2         NA         2020-2021         1         30         1         1           74         Advanced Graph Theory         NA         2020-2021         1         30         1         1	71	Front-End development with react	CBIT/20ITV043	2020-2021	1	30	1	1
74 Advanced Graph Theory NA 2020-2021 1 30 1 1	72	Essential Mathematics for Machine Learning	NA	2020-2021	1	30	1	1
	73	Essential Datascience with R software-2	NA	2020-2021	1	30	1	1
75 Privacy and security in online social media NA 2020-2021 1 30 1 1	74	Advanced Graph Theory	NA	2020-2021	1	30	1	1
	75	Privacy and security in online social media	NA	2020-2021	1	30	1	1

## CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY(A), HYDERABAD-500075

1.3.2 Number of value-added courses for imparting transferable and life skills offered during last five years

#### INDEX: AY:2020-2021

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3	Fresh man course	6
4	Indian Constitution	13
5	Ancient Indian Knowledge	32
6	Environmental science	44
7	Wild life Ecology	50
8	Bio interface Engineering	54
9	Biomechanics of Joints and Orthopaedic implants	58
10	Biomedical Nanotechnology	62
11	Cell culture technologies	66
12	Computer Aided drug design	70
13	Conservation Economics	74
14	Drug delivery principles and Engineering	78
15	Ecology and Environment	82
16	Forest and their Management	86
17	Human Molecular Genetics	90
18	Introduction to Mechanobiology	94
19	Introduction to Proteogenomics	99
20	Introduction to proteomics	104
21	Legal and regulatory issues in biotechnology	109
22	Neuroscience of Human Movements	113
23	Organic farming for sustainable Agriculture production	115
24	Patent law for engineers and scientists	121
25	Principle and Practices of process Equipment and plant design	127
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28	Technologies for clean and Renewable energy production	140
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30	Algorithmic toolbox	146
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34	C & C++	150
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37	Responsive web design	153
38	Programming for Everybody (Getting Started with Python)	154
39	Crash course on python	154

## CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY(A), HYDERABAD-500075

1.3.2 Number of value-added courses for imparting transferable and life skills offered during last five years

#### INDEX: AY:2020-2021

S.No	Name of the value added courses (with 30 or more contact hours)offered	Page No.
40	Introduction to software product management	
41	AI for every one	155
42	Getting started in google analytics	155
43	Using python access the web data	155
44	Python for data structures	156
45	Deep Learning using python	156
46	Google IT support	158
47	The fundamentals of digital marketing	159
48	Introduction to Cybersecurity Tools & Cyber Attacks	159
49	IT Fundamentals for Cybersecurity	160
50	Artificial Intelligence	160
51	Machine Learning	161
52	The Joy of Computing using Python	162
53	Programming in java	163
54	Programming with python	164
55	Full Stack with Django and React	165
56	Introduction to machine learning	166
57	The bits and bytes of computer networking	167
58	Operating systems and you	167
59	System adminstration and IT infratructue services	168
60	IT Security	168
61	Advanced Styling with Responsive Design	168
62	Introduction to HTML5	169
63	Interactivity with javascript	170
64	Java and python	170
65	Introduction to C# programming and unity	170
66	Full Stack Development	171
67	Using python to interact with operating system	171
68	Introduction to game development	172
69	Getting started with AWS and machine learning	172
70	Introduction to CSS3	172
71	Front-End development with react	174
72	Essential Mathematics for Machine Learning	175
73	Essential Datascience with R software-2	177
74	Advanced Graph Theory	178
75	Privacy and security in online social media	179

### Title of the value-added course

### Freshman Course

Code: CBIT/20MEV09 Duration: 32 hrs

Target participates: Semester II

Duration of the course: 21.12.2020 to 16.04.2021

Academic year: 2020 -21

PROFESSOR & HEAD
Department of Civil Engineering
Charterya Bharabi Institute of Technology
GANDIPET, HYDERABAD-5000 075

### **Syllabus**

Introduction to science and technology, role of engineer, various streams of technology, myths in technology, expectations from the current and future engineers. Outcome based education. NBA programme outcomes. Roll of Engineers in the society

Engineering problems and Design, introduction to econometrics system, multiple solutions and optimization.

Basic Mechanisms, Introduction to programming platforms such as Arduino and its essentials, sensors, transducers and actuators and their interfacing with Arduino.

Data Acquisition and Analysis: Types of data, of data, types of graphs and their applicability, MS-Office. Exporting acquired data to spreadsheets, and analysis using representation.

Agile manufacturing, project management tools, charts, Ethics & Sustainability in Engineering, professional ethics, code of conduct . Sustainability in Engineering. life cycle assessment, carbon foot print.

Period	1	2	3	L	4	5	6
Time	9.10 to	10.10 to	11.15 to	N	1.00 to	2.00 to	3.05 to
	10.10	11.10	12.15	С	<mark>2.00</mark>	<mark>3.00</mark>	4.05
MON				н			
TUE							
WED	Freshmen	<mark>Course</mark>		В			
THU				R			
FRI				E			
SAT				A K			

Name of	Course code	Year of	No of time	Duration	No of	Number of
the value		offering	offered		students	students
added			during the		enrolled	completing
course			same year			course in
						the year
Freshman	CBIT/20MEV09	2020-21	1	32 hrs	58	58
course						

CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY ENVIRONMENTAL IMPACT AND MONITORING - CBIT/20CEV01 LIST OF STUDENTS				
1601-19-732-001	AISHWARYA CHOUDARY			
1601-19-732-002	AKHILA SRIGADDE			
1601-19-732-003	ANUSHA RACHAPAKA			
1601-19-732-004	CHARVI PANYALA			
1601-19-732-005	CHIHNITHA KONTEMUKKULA			
1601-19-732-006	HARIKA MOKKA			
1601-19-732-007	KAMALA RAMA SRIKARI BHANDARAM			
1601-19-732-008	KHYATHI VARDHINI VANGALA			
1601-19-732-009	LIKHITA YANDAVA			
1601-19-732-010	MAHEEN SADIQ			
1601-19-732-011	MAHIMA DASARY			
1601-19-732-012	МАНІТНА КОТТЕ			
1601-19-732-013	NIKITHA GODISELA			
1601-19-732-014	NIKITHA KARNAM			
1601-19-732-015	PRAGNA KASARLA			
1601-19-732-016	PRAVALIKA BADDAM			
1601-19-732-017	RAMYA BANDI			
1601-19-732-018	SANYUKTA CHENNA			
1601-19-732-019	SHIVANI MAMIDI			
1601-19-732-020	SRAVYA SUTHARI			
1601-19-732-021	VANDANA S VADITHYA			
1601-19-732-022	ADITYA YANAMANDRA			
1601-19-732-023	AKHIL RAJESH GOUD PACHIMATLA			
1601-19-732-024	ANIL YADAV G			
1601-19-732-025	BOBBYROHAN DASARI			
1601-19-732-026	DINESH MODEM			
1601-19-732-027	DROVAN REDDY OBILIGOVENDHUGARI			
1601-19-732-028	HARSHAVARDHAN DONGALA			
1601-19-732-029	HARSHITH REDDY DAWALGARI			
1601-19-732-030	LAXMI TARUN PADUGUPADU			
1601-19-732-031	MANOJ RAMI REDDY PALLAVALI			
1601-19-732-032	MEGHANATH ANNAPURI	ly-		

1601-19-732-033	NAVEEN KUMAR K
1601-19-732-034	NIKHIL PATHA
1601-19-732-035	NITHIN VARMA POSHALA
1601-19-732-036	PAVAN KALYAN REDDY ERUVURI
1601-19-732-037	RAHUL GUNDOJU
1601-19-732-038	RAJEEV REDDY P
1601-19-732-039	RAJESH KATTA
1601-19-732-040	RAKESH BOLLE
1601-19-732-041	ROHAN GOGIKARI
1601-19-732-042	ROHAN VIVEK ATMAKURU
1601-19-732-043	ROSHAN BAJJURI
1601-19-732-044	SACHIN MUDIGONDA
1601-19-732-045	SAI CHARAN NAGARAM
1601-19-732-047	SAI DARSHAN MEDISETTY
1601-19-732-048	SAI KAMAL ARUKALA
1601-19-732-049	SAI KIRAN NAIK AMGOTH
1601-19-732-050	SAI VAMSHI RAJU TELLAPURAM
1601-19-732-051	SAI VAMSI VINUKONDA
1601-19-732-052	SREE HARSHA GHANDIKOTA
1601-19-732-053	SRI MANJUNATHA VADDEPALLY
1601-19-732-054	SUHAS DASARI
1601-19-732-055	UMAKANTH DESHMUKH
1601-19-732-056	VAMSHI AMGOTH
1601-19-732-057	VENKAT SAKETH APPAJI
1601-19-732-058	VENKATA VIGNAN DOMALA
1601-19-732-059	VIJAY KUMAR VODDEPALLY
1601-19-732-060	VINAY MUNIGANTI
1601-19-732-301	GUNDEBOINA TULASI
1601-19-732-302	K MANIPAL
1601-19-732-303	PALLA DIVYA
1601-19-732-304	VASALA NITHYA
1601-19-732-305	SHAIK IBRAHIM
1601-19-732-306	BUTHAPALLY NANDINI
1601-19-732-061	ATUFA TANYEEM
1601-19-732-062	DEVI CHANDISHWARI MUSLAPURAM

1601-19-732-063	ESHRATH ANJUM
1601-19-732-064	MANASWINI ASA
1601-19-732-065	POOJITHA CHIPPALAPELLY
1601-19-732-066	PRASANNA MUTHINENI
1601-19-732-067	PRATHYUSHA SAIDU
1601-19-732-068	RISHITHA KOMMIDI
1601-19-732-069	SAI KEERTANA K
1601-19-732-070	SOWMYA GUNDUKADI
1601-19-732-071	SOWMYA LALAGARI
1601-19-732-072	SRI HARINI REDDY CHILUKA
1601-19-732-073	SWETHA KESAVARAPU
1601-19-732-074	SWETHA THUMMA
1601-19-732-075	VAISHNAVI DEVI PATNAM
1601-19-732-076	ABHILASH CHALLA
1601-19-732-077	ABHINAY BHONAGANI
1601-19-732-078	ABHISHEK YADAV BADRI
1601-19-732-079	ANJANEYA VARMA KANUMURI
1601-19-732-080	ASHIR JOSHUA TA
1601-19-732-081	CHARAN NAIK BANOTH
1601-19-732-082	CHIRAG D NANKANI
1601-19-732-083	DHANUSH PULI
1601-19-732-084	HARSHA VARDHAN VYAS AMBATI
1601-19-732-085	HRUSHIKESH REDDY G
1601-19-732-086	JAIVANTH KUMAR G
1601-19-732-087	JAYADEEP BATHINI
1601-19-732-088	KOUSHIK KARRA
1601-19-732-089	KRISHNAIAH DONGALA
1601-19-732-090	LOKESH KUMAR GUNTI
1601-19-732-091	LUKESH GAMPA
1601-19-732-092	MALLIKARJUN OSA
1601-19-732-093	MANISH KUMAR
1601-19-732-094	MANOJ KUMAR AMBATI
1601-19-732-095	MOHAMMED ABDUL QUADAR
1601-19-732-096	MOHAMMED AJMAL ALI
1601-19-732-097	MOHAMMED FASI AHMED

1601-19-732-098	NAVEEN NAIDU ALLA
1601-19-732-099	NIKHIL KUMAR K
1601-19-732-100	NITHINREDDY BOGIREDDY
1601-19-732-101	PRASHANTH KUMAR REDDY ANANTHA
1601-19-732-102	PRAVEEN KUMAR SANDYAPOGU
1601-19-732-103	RAHUL KARAN K R
1601-19-732-104	RAKESH PEDDINA
1601-19-732-105	RAVI MALLEVOINA
1601-19-732-106	ROHITH ALETI
1601-19-732-107	SAATHVIK CHERIPALLI
1601-19-732-108	SAI KUMAR SIRAMAINA
1601-19-732-109	SAI VINAY BOGA
1601-19-732-110	SATHWIK REDDY PASHYA
1601-19-732-111	SHIVA NARAYANA KONDAMEDI
1601-19-732-112	SREEJAN REDDY KANDI
1601-19-732-113	SUPREETH REDDY SAMPATH
1601-19-732-114	SWAMY NARAPAKA
1601-19-732-115	UDAY KIRAN REDDY PATNAM
1601-19-732-116	UDHAY GOUD D
1601-19-732-117	UTTAM SAI NAKKALA
1601-19-732-118	VENKATA KOWKUNTLA AKSHATH THIRUPATHI
1601-19-732-119	VENKATESH MARYADA
1601-19-732-120	YUVARAJA YALAMANCHILI
1601-19-732-307	VOODARI SATHWIKA
1601-19-732-308	MUDAM SRIKANTH
1601-19-732-309	GOVINDU SHIVANI
1601-19-732-310	LONKA SHIRISHA
1601-19-732-311	P ANVESH
1601-19-732-312	CHINTHAPALLI MANASA

# CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY (A) HYDERABAD-75 DEPARTMENT OF ENGLISH

**VALUE ADDED COURSE** 

Subject: Indian Constitutional Values

Subject Code: CBIT/20EGV06
AY 2020-21 YEAR IV SEM VII
Total Number of Students: 258

		VII Sem CSE-1
SI. No.	Roll Nos	Name of the Student
1	1601-17-733-041	SAAD AHMED
2	1601-17-733-042	SAGNIK ROY
3	1601-17-733-043	SAI ROHITH RAJ GOUD KALAL
4	1601-17-733-044	SAI SIDDHANTH POTU
5	1601-17-733-045	SAITEJA NALLA
6	1601-17-733-046	SATHWICK REDDY YALLA
7	1601-17-733-047	SHAIK ABDUL MUQTADEER
8	1601-17-733-048	SHREEYESH REDDY SUBBAGARI
9	1601-17-733-049	SRI SAI D
10	1601-17-733-050	SRI SAI SRAVAN MUDUMBA
11	1601-17-733-051	SRIDHAR KANDI
12	1601-17-733-052	SRIJAY PARSI
13	1601-17-733-053	SRINATH BRAHMESHWARKAR
14	1601-17-733-054	SRINIVAS PAVAN SINGH RUNVAL
15	1601-17-733-055	SRIRAM KARTHIKEYA V
16	1601-17-733-056	TEJA VAMSHI SINGAPANGA
17	1601-17-733-057	VARUN SUNDARAM
18	1601-17-733-058	VENKATA SAI TEJA THOTA
19	1601-17-733-059	VINAY KUMAR YERROLLA
20	1601-17-733-060	VINEETH SRIRANGAM
21	1601-17-733-061	ABHAY SINGH BALORIA (PMSSS for J&K)
22	1601-17-733-185	DANDAMUDI ROHIT
23	1601-17-733-301	BOLISETTY BHARGAV SAI
24	1601-17-733-302	PUDARI VAISHNAVI
25	1601-17-733-303	KUNDARAPU HARSHINI
26	1601-17-733-302	PUDARI VAISHNAVI
27	1601-17-733-303	KUNDARAPU HARSHINI
28	1601-17-733-304	MOHAMMED ABDUL MUJEEB
29	1601-17-733-305	MAHADEVUNI ANIRUDH
30	1601-17-733-306	DABBUKOTTU LAXMAN
31	1601-17-733-307	DOMMATI SRAVAN
32	1601-17-733-308	A SHASHANK

33	1601-17-733-309	KORAMONI AKANKSHA
34	1601-17-733-310	ABHILASH MODUMPALLY
35	1601-17-733-311	UDUTHA AKHILA

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Dept. of Mathematics and Humanities

haitanya Bharathi Institute of Technology

haitanya Bharathi Hyderabad-500 075.

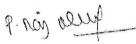
Gandipet, Hyderabad-500 075.

	VII Sem ECE-1		
SI. No.	Roll Nos	Name of the Student	
1	1601-17-735-037	PRANITH AKUNURI	
2	1601-17-735-038	ROHITH REDDY S	
3	1601-17-735-039	SAI GOWTHAM CHITTEMSETTY	
4	1601-17-735-040	SAI PRATHAP REDDY VADICHERLA	
5	1601-17-735-041	SAI TEJA MACHABATHUNI	
6	1601-17-735-042	SHAIK JANI MIYA	
7	1601-17-735-043	SHAIK JUNIATH	
8	1601-17-735-044	SHAIK SOHAIL	
9	1601-17-735-045	SHASHIVARDHAN REDDY KAVELI	
10	1601-17-735-046	SHIVAKUMAR Y	
11	1601-17-735-047	SHRAVAN KUMAR GOUD KALALI	
12	1601-17-735-048	SRIKANTH GAVIDE	
13	1601-17-735-049	SRIKANTH GUNTURU	
14	1601-17-735-051	SUNIL VARMA RUDRARAJU S S	
15	1601-17-735-052	THARUN THOTA	
16	1601-17-735-053	UTHEJ KADARI	
17	1601-17-735-054	VARUN MASKU	
18	1601-17-735-056	VENKATA KRISHNA SATHVIK RALLABANDI	
19	1601-17-735-057	VENKATA PAVAN VISHNU RACHAPUDI	
20	1601-17-735-058	VIJAY BHASKAR NITTALA	
21	1601-17-735-059	VIVEK KALVA	
22	1601-17-735-060	VIVEK PALLE	
23	1601-17-735-181	AMAN AHMED	
24	1601-17-735-301	KOLLA SATISH KUMAR	
25	1601-17-735-302	VANJIVAKKAM SOMASKANDA KARTHIK PRAPANNA	
26	1601-17-735-303	GOVINDUGARI SAI KIRAN REDDY	
27	1601-17-735-304	DONTHINENI SAITEJA	
28	1601-17-735-305	DHAVOLLA DIVYA	
29	1601-17-735-306	BAREDDY SHARANYA	
30	1601-17-735-307	DESHOJU RAJESH	

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		VII Sem CSE-2
Sl. No.	Roll Nos	Name of the Student
1	1601-17-733-093	KHUSHWANTH KUMAR RAGAM
2	1601-17-733-094	KOUSHIK REDDY PATNAM
3	1601-17-733-095	MIRZA AKBER NAMAZI
4	1601-17-733-096	MOAZZAM ZAHURUDDIN MOHAMMED
5	1601-17-733-099	МОНІТН В
6	1601-17-733-100	MOUNISH JUVVADI
7	1601-17-733-101	NAVEEN VAMSHI PEETHALA
8	1601-17-733-102	NIHAL REDDY VATTI
9	1601-17-733-103	PAVAN GOPI PRANEETH GIDDA
10	1601-17-733-104	PRAGNESH B
11	1601-17-733-105	PREETHAM REDDY GOLLAPALLI
12	1601-17-733-107	SAI ASHISH REDDY PATLOLLA
13	1601-17-733-108	SAI SANKEERTH MODINI
14	1601-17-733-109	SAIF ALI ATHYAAB
15	1601-17-733-110	SHAIK WASEEM AKRAM
16	1601-17-733-111	SHARATH CHANDRA SRIRAMULA
17	1601-17-733-112	SHASHANK KANDAALA
18	1601-17-733-114	VAIBHAW POKALA
19	1601-17-733-115	VARUN B
20	1601-17-733-116	VENKATA KEDARNATH CHATURVEDULA
21	1601-17-733-117	VENKATA SRIJESH KUMAR Y
22	1601-17-733-118	VIDYADHAR POGUL
23	1601-17-733-119	VINEETH SHARMA BUDDARAPU
24	1601-17-733-120	VISHAL CHANDRA JONGONI
25	1601-17-733-121	VISHAL REDDY VAKA
26	1601-17-733-122	ASHISH SHARMA (PMSSS for J&K)
27	1601-17-733-183	MOHAMMED SULTAN RAHIL
28	1601-17-733-313	MOHD SAYEED
29	1601-17-733-314	E HARITHA
30	1601-17-733-315	CHEKKA PRAVEEN
31	1601-17-733-316	KUNDANAPALLY VAMSHI
12	1601-17-733-317	N SHIVA KUMAR
3	1601-17-733-318	SARIPALLY DHARANI
4	1601-17-733-319	MUNIPALLY ABHIGNYA
5	1601-17-733-320	DURGAM BHARATH

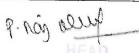


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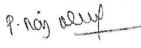
	VII Sem ECE-2		
SI. No.	Roll Nos	Name of the Student	
1	1601-17-735-092	GOVARDHAN KATTA	
2	1601-17-735-093	HRITHIK ROSHAN PALAMPATLA	
3	1601-17-735-094	KRISHNA CHAITANYA GOPARAJU	
4	1601-17-735-095	LAKSHMI SRIKANTH YECHURI	
5	1601-17-735-096	MAANVIK THODUPUNURI	
6	1601-17-735-097	MAHIDHARA REDDY KANKARA	
7	1601-17-735-099	NAVEEN Y	
8	1601-17-735-100	NIKHIL KANUKUNTLA	
9	1601-17-735-101	PRAJAY REDDY MINUKA	
10	1601-17-735-102	PRANITH REDDY MINUMULA	
11	1601-17-735-103	RAHULT	
12	1601-17-735-104	RAKSHITH DEVUNURI	
13	1601-17-735-105	RUPESH CHANDRA SAYAM	
14	1601-17-735-106	SAITHARUN BAIRI	
15	1601-17-735-107	SAKETH REDDY DODDA	
16	1601-17-735-108	SHIVA DHANUSH DUSSA	
17	1601-17-735-109	TARUN KALTHI	
18	1601-17-735-110	TEJA REDDY KOMMIDI	
19	1601-17-735-111	TEJESHWAR SINGH RAJPUT	
20	1601-17-735-112	VAMSHI GANNA	
21	1601-17-735-114	VASHISTA BASAVA	
22	1601-17-735-116	VINAY REDDY NAVARI	
23	1601-17-735-117	VINAY REDDY POCHAMPALLY	
24	1601-17-735-118	VISHNU BHARGAV KOTTE	
25	1601-17-735-119	VISHWA TEJA BINGI	
26	1601-17-735-120	VISHWA VIJETHA GUJJULA	
27	1601-17-735-313	BANSWADA SUMANTH REDDY	
28	1601-17-735-314	THAMMISHETTY AKHILESH	
29	1601-17-735-315	NAGILLA PRANEETH REDDY	
30	1601-17-735-316	CHOWDARY VANI	

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	VII Sem CSE-3		
Sl. No.	Roll Nos	Name of the Student	
1	1601-17-733-156	KISHORE KUMAR NAGARAM	
2	1601-17-733-157	KOUSTHUBHA KRISHNA CH	
3	1601-17-733-158	MANIDEEP KUMAR GANDHARI	
4	1601-17-733-159	NIHASH VEERAMACHANENI	
5	1601-17-733-160	PRIYATAM SAI NARAVAJHULA	
6	1601-17-733-161	RAHUL SAI PRATAP	
7	1601-17-733-162	SAI KRISHNA GANTANNAGARI	
8	1601-17-733-163	SAI MEENAN VOOTURI	
9	1601-17-733-164	SAI RAJ YADAV SAANAM	
10	1601-17-733-165	SAI ROHITH KOMMINENI	
11	1601-17-733-166	SAICHARAN CHINTHA	
12	1601-17-733-167	SAIRAAM REDDY K V N	
13	1601-17-733-169	SANTHOSH KANNE	
14	1601-17-733-170	SATHVIK MANSANPALLY	
15	1601-17-733-171	SATYAJIT MOHANTY	
16	1601-17-733-172	SHIVA KUMAR JADA	
17	1601-17-733-173	SIDDHARTH TUMRE	
18	1601-17-733-174	SREEDEEP RAYAVARAPU	
19	1601-17-733-175	SRINATH GARIGANTI	
20	1601-17-733-176	SRINIVAS REDDY CHITUKULA	
21	1601-17-733-178	SUJAN CHITHALURI	
22	1601-17-733-179	SUPREET V	
23	1601-17-733-180	VARUN BAMANDLAPELLY	
24	1601-17-733-181	VISHNU GADAM	
25	1601-17-733-182	VISHNU VARDHAN REDDY P	
26	1601-17-733-184	DYAPA KOWSHIK REDDY	
27	1601-17-733-325	SIRIKONDA RAKESH	
28	1601-17-733-326	MANDALA RADHIKA	
29	1601-17-733-327	T SHIVA SAI	
30	1601-17-733-328	GOPALA ARCHANA	
31	1601-17-733-329	V SAI KEERTHANA	
32	1601-17-733-330	L MADHUSUDHAN	
34	1601-17-733-331	MOHAMMED RASHID AHMED SILLEDAR	
35	1601-17-733-332	GUNDALA MOULIKA 10-08-2020	



	VII Sem ECE-3		
SI. No.	Roll Nos	Name of the Student	
1	1601-17-735-151	KAILAS SALAVATH	
2	1601-17-735-152	KARTHIK MATHKA	
3	1601-17-735-153	MADHUKAR REDDY VARALA	
4	1601-17-735-154	MAHESH MANMARI	
5	1601-17-735-155	MANEESH KUMAR JERIPOTHULA	
6	1601-17-735-156	MOHAMMED ARIF	
7	1601-17-735-158	NITESH ALONEY	
8	1601-17-735-159	NITHISH CHILUKURI	
9	1601-17-735-160	PRANAV K	
10	1601-17-735-162	RAHUL GUNDALA	
11	1601-17-735-163	ROHIT PRASAD VARANASI	
12	1601-17-735-164	SAI ABHISHEK KODI	
13	1601-17-735-166	SAI KIRAN BANDARI	
14	1601-17-735-167	SAI KIRAN KONDOJU	
15	1601-17-735-168	SAI PANINDRA SANTOSH KUMAR MAJJI	
16	1601-17-735-171	SAITEJA REDDY PIDUGU	
17	1601-17-735-173	SHIVA KUMAR REDDY NAREDDY	
18	1601-17-735-174	SRI HARI KORAM	
19	1601-17-735-175	SRINIVASA BHARADWAJ CHAKILAM	
20	1601-17-735-176	SUDEEP REDDY SABBI REDDY	
21	1601-17-735-177	SURYA KANKATA	
22	1601-17-735-178	TULASI RAM CHOWDARY VEGE	
23	1601-17-735-180	VENKATA SAI LAXMAN YADAV GORIPARTHI	
24	1601-17-735-325	PULLURU KEERTHI	
25	1601-17-735-326	KOLA JAGADISHWAR	
26	1601-17-735-327	THOTA NAVYA	
27	1601-17-735-328	GOVINDOLLA BHAVANI	
28	1601-17-735-329	NAKKA SAI SIDDARTHA	
29	1601-17-735-330	BATHULA HANUMANSAGAR	
30	1601-17-735-331	NANDAMURI SAISHARAN	



HEAD

		VII Sem Civil-2
Sl. No.	Roll Nos	Name of the Student
1	1601-17-732-093	T NIPUN REDDY
2	1601-17-732-096	MUNGI PRASHANTH REDDY
3	1601-17-732-105	AMMAPURAM SAI SASHIKANTH
4	1601-17-732-061	JAGRUTHI JANDAGUDEM
5	1601-17-732-062	JAGRUTI ENDRALA
6	1601-17-732-063	KAVYA SHREE KALYANAM
7	1601-17-732-064	NEENA REDDY NANDIKONDA
8	1601-17-732-065	NIVEDITHA AKULA
9	1601-17-732-066	PREETHI AKULA
10	1601-17-732-067	SATHYAVATHI SIRIPANGI
11	1601-17-732-068	SHANVITHA VASAMSETTI
12	1601-17-732-069	SHRUTHI GUNNE
13	1601-17-732-070	SNEHA KURCHEETI
14	1601-17-732-071	SRI NAYANI GAJJI
15	1601-17-732-072	SRIVANI LINGAMPALLY
16	1601-17-732-073	UDAYA SRI BANDI
17	1601-17-732-074	VAISHNAVI NAGARAM
18	1601-17-732-075	ABDUL RAFAE SYED
19	1601-17-732-076	ABHILASH SUDARSHANAM
20	1601-17-732-077	ABHIRAM MALLEMPATI
21	1601-17-732-078	AMOGH REDDY DESHMUKH LINGALA
22	1601-17-732-079	ANANTH PATHLOATH
23	1601-17-732-080	ARUN VARMA CHITHALURI
24	1601-17-732-081	ASHISH UPPALANCHI
25	1601-17-732-082	BHEESHMA DANDUGULA
26	1601-17-732-084	HRITHIK THAKUR
27	1601-17-732-085	JAYAKALYAN REDDY
28	1601-17-732-086	KAMAL NAYAN MUDIGONDA
.9	1601-17-732-087	KARTHIK POLU
0	1601-17-732-088	MAHENDHAR RADARAPU
8	1601-17-732-090	NAVEEN BANOTH
9	1601-17-732-091	NAVEEN KUMAR VANGALA
0	1601-17-732-092	NIKHIT KUMAR NELLI
1	1601-17-732-094	PAVAN KUMAR VUPPULA
2	1601-17-732-095	PRANESH BEESU N
3	1601-17-732-097	RAJ KUMAR PERMULA
4	1601-17-732-098	RAJESH PASHAMULA
5	1601-17-732-099	RAKESH ANNAMANENI
6	1601-17-732-100	RANEESH KUMAR VELAGAPUDI

37	1601-17-732-101	RAVITEJESHWAR REDDY CH	
38	1601-17-732-102	SAI DEEKSHITH M	
39	1601-17-732-103	SAI NAVEEN BALLA	
40	1601-17-732-106	SAI TEJA GOPU	
41	1601-17-732-108	SAIKUMAR KARNATI	

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	VII Sem Chemical			
SI. No.	Roll Nos	Name of the Student		
1	1601-17-802-040	RUSHIKESH PEDDABOMMA		
2	1601-17-802-041	SAI AASHRITH THATIPALLI		
3	1601-17-802-042	SAI NITHEESH MAGASANI		
4	1601-17-802-043	SAI SUMANTH GOUD MOLAGARA		
5	1601-17-802-044	SAMARTH SANDHA		
6	1601-17-802-046	SUHANTH P		
7	1601-17-802-047	THARUNESH PONUKANTI		
8	1601-17-802-049	VAMSHI GOUD SUKKALA		
9	1601-17-802-051	VIJAYA RAJU KESANAPALLI		
10	1601-17-802-052	VINAY RAO VEMULA		
11	1601-17-802-054	YUVARAJU JALLI		
12	1601-17-802-301	INJARAPU CHAITANYA VAMSI KRISHNA		
13	1601-16-802-004	HARSHITHA I		
14	1601-16-802-031	MOHAMMED AMINUDDIN		
15	1601-16-802-033	NAJABETH ALI KHAN		
16	1601-16-802-036	PHANINDRA GUPTA		
17	1601-16-802-047	MEKALA SHIVAPRASAD		
18	1601-16-802-306	MADESHI AKHIL		
19	1601-16-802-308	KANCHAPOGU NAGARAJU		
20	1601-16-802-310	PATHLAVATH VENKATESH NAYAK		
21	1601-16-802-311	SADAMASTULA VENKATESH		
22	1601-15-802-019	D BALA SWAMI		

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Dept.of Local Control Humanities
Chaitanya Bharata Control Technology
Gandipet, Hyderward 500 075.

## CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY (A) HYDERABAD-75 DEPARTMENT OF ENGLISH

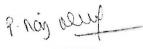
VALUE ADDED COURSE

Subject: Indian Constitutional Values Subject Code: CBIT/20EGV06 AY 2020-21 YEAR IV SEM VIII Total Number of Students: 250

	VIII Sem CSE-1		
Sl. No.	Roll Nos	Name of the Student	
1	1601-17-733-001	AKSHITHA NANAVALA	
2	1601-17-733-002	ALEKHYA THADAGONDA	
3	1601-17-733-003	AMRUTHA TIRUVEEDHULA	
4	1601-17-733-004	BALA SAI APOORVA MARADAPU	
5	1601-17-733-005	CHARITHA P	
6	1601-17-733-006	INDIRA PRIYADARSHINI VAGOLU	
7	1601-17-733-007	KHAZIELAKHA SANA SIMRAN	
8	1601-17-733-008	KINNERA REDDY BASANI	
9	1601-17-733-009	KRUTHIKA MAMIDALA	
10	1601-17-733-010	LAKSHMI ANUHYA GUNNAM	
11	1601-17-733-011	NAMYA REDDY GADDAM	
12	1601-17-733-012	NIKITHA BOGALA	
13	1601-17-733-013	RISHIKA REDDY PATLOLLA	
14	1601-17-733-014	SAI PRERANA MANDALIKA	
15	1601-17-733-016	SAI VINITHA YEGGADI	
16	1601-17-733-017	SAIRAKSHITHA YALAMANCHILI	
17	1601-17-733-019	SHRADDHA SRINIVAS PANGAM	
18	1601-17-733-020	SISIRA	
19	1601-17-733-021	STELLA RAMOLA ERDANI	
20	1601-17-733-022	VAISHNAVI CHITTURI	
21	1601-17-733-023	ABDUL QAVI	
22	1601-17-733-024	ABHIRAM REDDY C M	
23	1601-17-733-025	ABISHEK CHALLA	
24	1601-17-733-026	CHAKRADHAR S	
25	1601-17-733-028	GOPI KUMAR MAKWANA	
26	1601-17-733-029	HITESH PULIVARTHI	
27	1601-17-733-030	HRUDAY TEJ AKKALADEVI	
28	1601-17-733-031	KANISHKA SUTRAVE	
29	1601-17-733-032	MOHAMMED SAFI AMMAR	
30	1601-17-733-033	MOHAMMED ZUBAIR AHMED	



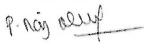
VIII Sem ECE-1			
SI. No.	Roll Nos	Name of the Student	
1	1601-17-735-001	AKHILA MAARKA	
2	1601-17-735-002	ANJALI KANCHARLAPALLY	
3	1601-17-735-003	FAROOQUNNISA	
4	1601-17-735-004	HASEENA PALLE	
5	1601-17-735-005	KHUNDHANA M	
6	1601-17-735-006	KRISHNA SAI GEETHIKA SRIPATHI	
7	1601-17-735-007	LOHITHA GUNDAGANI	
8	1601-17-735-008	MAANSA KROVVIDI	
9	1601-17-735-009	NAMITHA KOMMINENI	
10	1601-17-735-010	NIKHILA RAJ NITTA	
11	1601-17-735-011	NIKHITHA T	
12	1601-17-735-012	NIPUNA VANCHA	
13	1601-17-735-013	PRAGNA DASARI	
14	1601-17-735-014	PRIYANKA KILARU	
15	1601-17-735-015	SAATHVI AVULA	
16	1601-17-735-016	SHIVANI JANNAIKODE	
17	1601-17-735-017	SHRAVANI REDDY VODDULA	
18	1601-17-735-018	SHREYA REDDY NANDIKA	
19	1601-17-735-019	SOWJANYA BODDANI	
20	1601-17-735-020	SRINIJA LANKALA	
21	1601-17-735-022	VYSHNAVI CHEEDEPUDI	
22	1601-17-735-023	ABHINAY SURYA	
23	1601-17-735-024	ABHISHEK ADIRE	
24	1601-17-735-025	ABHISHEK BEGARI	
25	1601-17-735-026	ADITYA PAMULAPATI	
26	1601-17-735-027	ASHISH ALLAMPALLY	
27	1601-17-735-028	BHARGAV KUMAR MAMIDALA	
28	1601-17-735-029	BHUVANESH SAMMETA	
29	1601-17-735-030	CHANIKYA MAMINDLAPALLI	
30	1601-17-735-031	DAMODHAR GADDI	
31	1601-17-735-303	GOVINDUGARI SAI KIRAN REDDY	
32	1601-17-735-304	DONTHINENI SAITEJA	
33	1601-17-735-305	DHAVOLLA DIVYA	
34	1601-17-735-306	BAREDDY SHARANYA	
35	1601-17-735-307	DESHOJU RAJESH	



VIII Sem CSE-2		
SI. No.	Roll Nos	Name of the Student
_1	1601-17-733-062	APOORVA P
2	1601-17-733-063	HARSHINI BORUGADDA
3	1601-17-733-064	INDU BOGALA
4	1601-17-733-065	INDU SALUGU
5	1601-17-733-066	MAANASA GUPTA THATIKONDA
6	1601-17-733-067	MADHAVI DEVI YELLAPU
7	1601-17-733-068	NANDINI PRIYA DEVALLA
8	1601-17-733-069	NEHA TODIMA
9	1601-17-733-070	PRAKASHITHA JALADANKI
10	1601-17-733-071	RISHIKA PABBA
11	1601-17-733-072	ROSHINI JUMMALA
12	1601-17-733-073	SAHAJA SAMUDRALA
13	1601-17-733-074	SAMHITHA KAMMA CHAVALA
14	1601-17-733-075	SNEHITHA NAYAKA
15	1601-17-733-076	SOWMYA BOMMU
16	1601-17-733-077	SPOORTHI BADIKALA
17	1601-17-733-078	SRAVYA GUDIPELLY
18	1601-17-733-079	SRI SWATHI NIMMAGADDA
19	1601-17-733-080	SRUJANA CHERUKURI
20	1601-17-733-081	STHEERTHA SRI SANTOSHI RISHIKA R
21	1601-17-733-082	SUPRIYA PAKALA
22	1601-17-733-083	VAISHNAVI KUBEER
23	1601-17-733-084	ABHILASH DEVINURI
24	1601-17-733-086	ADARSH PATI
25	1601-17-733-087	ANUDEEP KANDULA
26	1601-17-733-088	DINAKAR PARUL KARANAM
27	1601-17-733-089	HARSH RAJ J
28	1601-17-733-090	HARSHAVARDHAN DAMMALAPATI
29	1601-17-733-091	HARSHAVARDHAN POTLA
30	1601-17-733-092	KARTHIK KASUKURTI

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VIII Sem ECE-2		
SI. No.	Roll Nos	Name of the Student
1	1601-17-735-061	AKANKSHA THALLA
2	1601-17-735-062	AKHILA MARRIKUKKALA
3	1601-17-735-063	ANUSHA BAMAR
4	1601-17-735-064	CHANDANA SUNKARA
5	1601-17-735-065	GAYATHRIDEVI PAPPU
6	1601-17-735-066	KAVYA MADASU
7	1601-17-735-067	LIKHITHA ANDE
8	1601-17-735-068	MALIKA RANI TIRVAJI
9	1601-17-735-069	MAMATHA ERUGADINLA
10	1601-17-735-070	MANISHA A
11	1601-17-735-071	NAVYA CHALAMALASETTY
12	1601-17-735-072	NIHARIKA HARI
13	1601-17-735-073	NIHARIKA KAVADI
14	1601-17-735-074	NIKITHA KOTHARAMULA
15	1601-17-735-075	RITHIKA GURRAM
16	1601-17-735-076	SAHITI ARIGELA
17	1601-17-735-077	SAI HARSHITHA GOLLAPALLI
18	1601-17-735-078	SAI PRANAVI REDDY P
19	1601-17-735-079	SANJANA G
20	1601-17-735-080	SHREYA REDDY G
21	1601-17-735-081	SOWMYASRI SANGAPU
22	1601-17-735-082	ABDUL LATEEF MOHD ABDUL KALEEM
23	1601-17-735-083	ABHIJIT CHANDRA UTPALA
24	1601-17-735-084	ABHINAV K J
25	1601-17-735-085	AJAY SRIKAR MEDIDI
26	1601-17-735-086	AKSHITH ALUGURI
27	1601-17-735-087	ARUN KUMAR S
28	1601-17-735-089	BHARADWAJ DANDE V N
29	1601-17-735-090	CHARANJIT NANDIGAMA
30	1601-17-735-091	DHEERAJ VAMSI GADDAM
31	1601-17-735-317	VEESAM DILEEP REDDY
32	1601-17-735-319	NASREEN SULTHANA
33	1601-17-735-320	ANDUGULA VASAVI
34	1601-17-735-321	BUDIDHA VINAY TEJA
35	1601-17-735-322	PANCHAREDDY HINDUJA



VIII Sem CSE-3		
SI. No.	Roll Nos	Name of the Student
1	1601-17-733-123	ALEKYA KONDEPUDI
2	1601-17-733-124	ANANYA PUPPALA
3	1601-17-733-125	ANMOL JAIN
4	1601-17-733-126	BHARGAVI SUNKIREDDY
5	1601-17-733-127	DEEKSHITHA OBULREDDYGARI
6	1601-17-733-128	JUHITHA DODDOJU
7	1601-17-733-129	JYOTIKA KONERU
8	1601-17-733-130	KEERTHANA GURINDA GUNTA
9	1601-17-733-131	KRANTHI REKHA CHINTHAPALLY
10	1601-17-733-132	NEHA PENDEM
11	1601-17-733-133	PEEYUSHA K
12	1601-17-733-134	PUNYA KEERTHI REDDY PADURI
13	1601-17-733-135	RUCHITHA REDDY P
14	1601-17-733-136	SAI LAKSHMI SPANDANA BULUSU
15	1601-17-733-137	SATWIKA PASHAM
16	1601-17-733-138	SHWETHA YARAMADA
17	1601-17-733-139	SNEHA MIRYALA
18	1601-17-733-140	SRESHTA RUSHYA PUTCHALA
19	1601-17-733-141	SRINIDHI REDDY KONDA
20	1601-17-733-142	SUSMITHA CHINTAREDDY
21	1601-17-733-143	VISHNU PRIYA G
22	1601-17-733-144	VYSHALI CHAVA
23	1601-17-733-145	ANIRUDH V L
24	1601-17-733-146	ASIM AHMED
25	1601-17-733-147	BHANU PRASAD NAYAK RAMAVATH
26	1601-17-733-148	CHANIKYA LADI
27	1601-17-733-149	CHARITHESH PUPPIREDDY
28	1601-17-733-150	DHANUSH PAKANATI
29	1601-17-733-151	DORA SAI VARMA ESKEPALLI
30	1601-17-733-152	GANADEEKSHITH REDDY VASEPALLI

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VIII Sem ECE-3		
Sl. No.	Roll Nos	Name of the Student
1	1601-17-735-121	AKHILA KONAKANCHI
2	1601-17-735-122	ANUSHA G
3	1601-17-735-123	DEEPIKA REDDY BADDAM
4	1601-17-735-124	DEVEEKA RAVI MESHRAM
5	1601-17-735-125	DIVYA SREE P V
6	1601-17-735-126	GAYATRI PEDDI
7	1601-17-735-127	JYOTHSNAVI KUPPILI
8	1601-17-735-128	MAANASVI KODLI
9	1601-17-735-129	MADIHA FATHIMA
10	1601-17-735-130	NAGA SAI HARSHITA KAZA
11	1601-17-735-131	NIKHILA MANUPURI
12	1601-17-735-132	NIKHITHA VALISHETTI
13	1601-17-735-133	NISHNA VEERANKI
14	1601-17-735-134	PRAGATHI G
15	1601-17-735-135	PRAVALIKA CHITLOJU
16	1601-17-735-136	SARAYU JUPUDI
17	1601-17-735-137	SHIVANI SAMA
18	1601-17-735-138	SHRAVANI JALLI
19	1601-17-735-139	SOWMIKA ANJURU
20	1601-17-735-140	SREEJA K
21	1601-17-735-141	SRI SAI MERUGU
22	1601-17-735-142	SRITEJA GOPALA
23	1601-17-735-143	TEENA CHOWDARY DHULIPALA
24	1601-17-735-144	VENKATA SAI SRUTHI CHEBROLU
25	1601-17-735-145	VINOOTHNA SREE NAYAKANTI
26	1601-17-735-146	ABHIRAM M S D
27	1601-17-735-147	AKHIL TEJA JAMPANI
28	1601-17-735-148	BHAGATH SINGH KHARE
29	1601-17-735-149	BOB ABISHAI BATHULA
30	1601-17-735-150	JOSEPH MICHAEL MURRAY

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	VIII Sem IT-2		
SI. No.	Roll Nos	Name of the Student	
1	1601-17-737-097	MADHAV JINDAM	
2	1601-17-737-098	MOKSH SAILESH JAIN	
3	1601-17-737-099	NITIN REDDY VATTI	
4	1601-17-737-100	PAVAN KALYAN INUGURTHI	
5	1601-17-737-101	PRASHANTH GOPATHI	
6	1601-17-737-102	PREETHI VARDHAN ANUSRI EGA	
7	1601-17-737-103	RAGHAV MADHAVAPEDDI	
8	1601-17-737-104	ROHITHKUMAR KESHETTI	
9	1601-17-737-105	SAI CHARAN KOPPARAPU	
10	1601-17-737-108	SAMPATH BHUKYA	
11	1601-17-737-109	SANJAY KUMAR KALWA	
12	1601-17-737-110	SATHVIK SURABHI	
13	1601-17-737-112	SUMANTH PARAMKUSAM	
14	1601-17-737-113	SYED HYDER HUSSAIN	
15	1601-17-737-115	VENKATA SRINIVAS KOMPALLY	
16	1601-17-737-116	VIKAS GOLI	
17	1601-17-737-117	VINAY PANNATI	
18	1601-17-737-118	VINEETH UDUMALA	
19	1601-17-737-120	ZOHAIB ABDULLAH AHMED	
20	1601-17-737-313	HAMILPUR SHIVANI	
21	1601-17-737-314	AKHIL BANDARU	
22	1601-17-737-315	RANGASUBE NITEESH BHARGAV	
23	1601-17-737-316	KEERTHI YASHWANTH	
24	1601-17-737-317	BHEMAVARAPU NAGENDER	
25	1601-17-737-320	M.SRIDHAR GOUD	
26	1601-17-737-321	R POOJITHA	
27	1601-17-737-322	M BANU TEJA	
28	1601-17-737-323	MUSHFIQ HUSSAIN	
29	1601-16-737-090	GONE JAYA SIMHA SAI SHIVA REDDY	
30	1601-16-737-093	MD MAHEBUB	

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VIII Sem EEE-2		
Sl. No.	Roll Nos	Name of the Student
1	1601-17-734-091	MOHIT SRINIVAS MAHAVEER PASUPULETI
2	1601-17-734-092	PARJANYA PHANI MUDIGONDA
3	1601-17-734-093	PAVAN LAVUDYA
4	1601-17-734-095	PAVAN KUMAR DHARMOJU
5	1601-17-734-096	POOJITH RAMAGIRI
6	1601-17-734-097	RAKESH GORATI
7	1601-17-734-098	RAKESH GOUD G
8	1601-17-734-099	SAGAR TIWARI
9	1601-17-734-100	SAI DEESKSHITH RAYAPROLU
10	1601-17-734-101	SAI KRISHNA KAVALI
11	1601-17-734-102	SAI KRISHNA VOGGU
12	1601-17-734-103	SAI KUMAR CHINNAM
13	1601-17-734-104	SAI PRANAY REDDY AARE
14	1601-17-734-105	SAI ROHIT KAPPALA
15	1601-17-734-106	SAI TEJA NARAHARI
16	1601-17-734-109	SHYAM SUNDER REDDY KUNREDDY
17	1601-17-734-111	SRINIVASA REDDY DUGGAMPUDI
18	1601-17-734-112	SURYA RAJ K
19	1601-17-734-113	SURYATEJA REDDY CHITTI
20	1601-17-734-114	SWAMY DEVENDER VARDHAN BANDARI
21	1601-17-734-115	VASHIST NULIGONDA
22	1601-17-734-116	VISHWANATH REDDY VANGATI
23	1601-17-734-117	YASHWANTH A S N
24	1601-17-734-118	YASHWANTH BARATAM
25	1601-17-734-120	YESHWANTH RAYANKULA
26	1601-17-734-313	D RATHANAKAR REDDY
27	1601-17-734-314	K MALLESH
28	1601-17-734-316	P NAGARAJU
29	1601-17-734-317	YENUGANDULA RANADHEER
30	1601-17-734-318	KARNATI NAGANJANI

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# CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY (A) HYDERABAD-75 DEPARTMENT OF ENGLISH

**VALUE ADDED COURSE** 

Subject: Writing Research Papers Subject Code: CBIT/20EGV08 AY 2020-21 YEAR IV SEM VIII Total number of students: 25

VIII Sem Biotech		
SI. No.	Roll Nos	Name of the Student
1	1601-17-805-001	AKANKSHA JOSHI
2	1601-17-805-002	AKSHITHA GUMMADI
3	1601-17-805-003	DEEPIKA DAMALLA
4	1601-17-805-004	DIVYA GANGA
5	1601-17-805-005	DIVYA TEJA GUNDALA
6	1601-17-805-006	HANITHA REDDY KOKU
7	1601-17-805-009	МАНІТНА К
8	1601-17-805-011	NAVYA B
9	1601-17-805-012	NISHATH NAAZ
10	1601-17-805-014	NITIKA GIRIDHAR CHINTAMANENI
11	1601-17-805-015	PADMAVATHI SAI BHAVANA RONGALA
12	1601-17-805-016	PRAHARSHITA V
13	1601-17-805-017	RISHIKA KRISHNA PRANAVI AVADHANAM
14	1601-17-805-018	RISHIKA REDDY PINNAPU REDDY
15	1601-17-805-019	RISHISREE REDDY GEEDIPALLY
16	1601-17-805-021	ROSHITHA VEGESANA
17	1601-17-805-022	ROSHNI RAJ
18	1601-17-805-023	SAI HARSHITHA DAKOOR
19	1601-17-805-025	SHALINI RAJ NAMPALLY
20	1601-17-805-026	SNEHA A
21	1601-17-805-027	SOUMYA R SARAF
22	1601-17-805-028	SPHOORTHY NADIMPALLI
23	1601-17-805-029	SRESHTA GADELA
24	1601-17-805-030	SRI LALITHA AMRITA GARLAPATI
25	1601-17-805-032	SRI RUPALI MUKUNDALA

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## TITLE OF THE VALUE-ADDED COURSE: ANCIENT INDIAN KNOWLEDGE

COURSE CODE: -CBIT/20EEV02

PROFESSOR & HEAD
Department of Civil Engineering
Changing Bharsibi institute of Technology
CANDIDET HYDENARAD-5000 075

CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY ENVIRONMENTAL IMPACT AND MONITORING - CBIT/20CEV01 LIST OF STUDENTS		
1601-19-732-001	AISHWARYA CHOUDARY	
1601-19-732-002	AKHILA SRIGADDE	
1601-19-732-003	ANUSHA RACHAPAKA	
1601-19-732-004	CHARVI PANYALA	
1601-19-732-005	CHIHNITHA KONTEMUKKULA	
1601-19-732-006	HARIKA MOKKA	
1601-19-732-007	KAMALA RAMA SRIKARI BHANDARAM	
1601-19-732-008	KHYATHI VARDHINI VANGALA	
1601-19-732-009	LIKHITA YANDAVA	
1601-19-732-010	MAHEEN SADIQ	
1601-19-732-011	MAHIMA DASARY	
1601-19-732-012	МАНІТНА КОТТЕ	
1601-19-732-013	NIKITHA GODISELA	
1601-19-732-014	NIKITHA KARNAM	
1601-19-732-015	PRAGNA KASARLA	
1601-19-732-016	PRAVALIKA BADDAM	
1601-19-732-017	RAMYA BANDI	
1601-19-732-018	SANYUKTA CHENNA	
1601-19-732-019	SHIVANI MAMIDI	
1601-19-732-020	SRAVYA SUTHARI	
1601-19-732-021	VANDANA S VADITHYA	
1601-19-732-022	ADITYA YANAMANDRA	
1601-19-732-023	AKHIL RAJESH GOUD PACHIMATLA	
1601-19-732-024	ANIL YADAV G	
1601-19-732-025	BOBBYROHAN DASARI	
1601-19-732-026	DINESH MODEM	
1601-19-732-027	DROVAN REDDY OBILIGOVENDHUGARI	
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1601-19-732-038	RAJEEV REDDY P
1601-19-732-039	RAJESH KATTA
1601-19-732-040	RAKESH BOLLE
1601-19-732-041	ROHAN GOGIKARI
1601-19-732-042	ROHAN VIVEK ATMAKURU
1601-19-732-043	ROSHAN BAJJURI
1601-19-732-044	SACHIN MUDIGONDA
1601-19-732-045	SAI CHARAN NAGARAM
1601-19-732-047	SAI DARSHAN MEDISETTY
1601-19-732-048	SAI KAMAL ARUKALA
1601-19-732-049	SAI KIRAN NAIK AMGOTH
1601-19-732-050	SAI VAMSHI RAJU TELLAPURAM
1601-19-732-051	SAI VAMSI VINUKONDA
1601-19-732-052	SREE HARSHA GHANDIKOTA
1601-19-732-053	SRI MANJUNATHA VADDEPALLY
1601-19-732-054	SUHAS DASARI
1601-19-732-055	UMAKANTH DESHMUKH
1601-19-732-056	VAMSHI AMGOTH
1601-19-732-057	VENKAT SAKETH APPAJI
1601-19-732-058	VENKATA VIGNAN DOMALA
1601-19-732-059	VIJAY KUMAR VODDEPALLY
1601-19-732-060	VINAY MUNIGANTI
1601-19-732-301	GUNDEBOINA TULASI
1601-19-732-302	K MANIPAL
1601-19-732-303	PALLA DIVYA
1601-19-732-304	VASALA NITHYA
1601-19-732-305	SHAIK IBRAHIM
1601-19-732-306	BUTHAPALLY NANDINI
1601-19-732-061	ATUFA TANYEEM
1601-19-732-062	DEVI CHANDISHWARI MUSLAPURAM

1601-19-732-063	ESHRATH ANJUM
1601-19-732-064	MANASWINI ASA
1601-19-732-065	POOJITHA CHIPPALAPELLY
1601-19-732-066	PRASANNA MUTHINENI
1601-19-732-067	PRATHYUSHA SAIDU
1601-19-732-068	RISHITHA KOMMIDI
1601-19-732-069	SAI KEERTANA K
1601-19-732-070	SOWMYA GUNDUKADI
1601-19-732-071	SOWMYA LALAGARI
1601-19-732-072	SRI HARINI REDDY CHILUKA
1601-19-732-073	SWETHA KESAVARAPU
1601-19-732-074	SWETHA THUMMA
1601-19-732-075	VAISHNAVI DEVI PATNAM
1601-19-732-076	ABHILASH CHALLA
1601-19-732-077	ABHINAY BHONAGANI
1601-19-732-078	ABHISHEK YADAV BADRI
1601-19-732-079	ANJANEYA VARMA KANUMURI
1601-19-732-080	ASHIR JOSHUA TA
1601-19-732-081	CHARAN NAIK BANOTH
1601-19-732-082	CHIRAG D NANKANI
1601-19-732-083	DHANUSH PULI
1601-19-732-084	HARSHA VARDHAN VYAS AMBATI
1601-19-732-085	HRUSHIKESH REDDY G
1601-19-732-086	JAIVANTH KUMAR G
1601-19-732-087	JAYADEEP BATHINI
1601-19-732-088	KOUSHIK KARRA
1601-19-732-089	KRISHNAIAH DONGALA
1601-19-732-090	LOKESH KUMAR GUNTI
1601-19-732-091	LUKESH GAMPA
1601-19-732-092	MALLIKARJUN OSA
1601-19-732-093	MANISH KUMAR
1601-19-732-094	MANOJ KUMAR AMBATI
1601-19-732-095	MOHAMMED ABDUL QUADAR
1601-19-732-096	MOHAMMED AJMAL ALI
1601-19-732-097	MOHAMMED FASI AHMED

1601-19-732-098	NAVEEN NAIDU ALLA
1601-19-732-099	NIKHIL KUMAR K
1601-19-732-100	NITHINREDDY BOGIREDDY
1601-19-732-101	PRASHANTH KUMAR REDDY ANANTHA
1601-19-732-102	PRAVEEN KUMAR SANDYAPOGU
1601-19-732-103	RAHUL KARAN K R
1601-19-732-104	RAKESH PEDDINA
1601-19-732-105	RAVI MALLEVOINA
1601-19-732-106	ROHITH ALETI
1601-19-732-107	SAATHVIK CHERIPALLI
1601-19-732-108	SAI KUMAR SIRAMAINA
1601-19-732-109	SAI VINAY BOGA
1601-19-732-110	SATHWIK REDDY PASHYA
1601-19-732-111	SHIVA NARAYANA KONDAMEDI
1601-19-732-112	SREEJAN REDDY KANDI
1601-19-732-113	SUPREETH REDDY SAMPATH
1601-19-732-114	SWAMY NARAPAKA
1601-19-732-115	UDAY KIRAN REDDY PATNAM
1601-19-732-116	UDHAY GOUD D
1601-19-732-117	UTTAM SAI NAKKALA
1601-19-732-118	VENKATA KOWKUNTLA AKSHATH THIRUPATHI
1601-19-732-119	VENKATESH MARYADA
1601-19-732-120	YUVARAJA YALAMANCHILI
1601-19-732-307	VOODARI SATHWIKA
1601-19-732-308	MUDAM SRIKANTH
1601-19-732-309	GOVINDU SHIVANI
1601-19-732-310	LONKA SHIRISHA
1601-19-732-311	P ANVESH
1601-19-732-312	CHINTHAPALLI MANASA

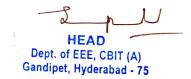
# **SUMMARY REPORT OF VALUE-ADDED COURSES-2020-21**

Course 1: Ancient Indian knowledge

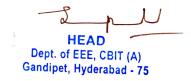
Code: CBIT/20EEV02

Duration: 30 Hours

SNO	Registered & completed student Name	Total no. of students
1	A DITHE DAYANI	registered & completed
1	A PUJIT PAVAN ALABOINA SHASHANK	<u> </u>
2		<u> </u>
3	KAPARTHI ANGEL SHEEBA	
4	SANABOYINA DEVIKA RANI	
5	SEGGAM GNANAPRASANNA	<u> </u>
6	MOCHI JAYASREE	<u> </u>
7	PEDDAPALLI LAKSHMI SAHITYA	<u> </u>
8	GADE LIKHITHA	<u> </u>
9	YENUGULA MANASA	
10	VUGGAM MANEESHA	
11	GUNDU NIHARIKA	
12	PATIL SAI VAISHNAVI	
13	MANNE SHINY ROSELEEN	
14	U SMRIDHI	
15	NALLURI SNEHA	
16	M SNEHA SUNDARI	
17	VELPULA SNEHA	
18	MEDAM SOUMYA	
19	KATIKAM VAMSHIKA	
20	VANGAVETI VIJAYA CHANDANA	
21	KUSA YAMINI	124
22	VATHADI ABHINAV VARMA	
23	ANANTHULA ADARSH	
24	D AKSHAY KUMAR	
25	RAMAVATH ARAVIND	
26	ADUVALA ARUN	
27	DOSAPATI CHRISTOPHER STEVEN MOSES	
28	DEVULAPALLY DHANUSH CHANDER	
29	GUNDEBOINA GANESH	
30		
31	MUCHERLA HARI PRAVEEN	
32	NALLA JAYANTH	
33	OGIRALA NAGAVENKATASAIVISHWANATH	
34	AYYALASOMAYAJULA NISHANTH	
35	A NITHIN	
36	NUTHAN REDDY VADDI REDDY	
37	KANIKARAPU PAVAN KUMAR	
38	KADAMALLA PRAPUL	
39	C RAJESH	
40	MEESALA RISHI PRANEETH	
41	ROHIT DATTA DIDUGU	



40	A CALADITECTI
42	A SAI ABHEESH
43	JATAVATH SAI KISHORE NAIK
44	GANDU SAI LIKHITH
45	GINJALA SAI RAM REDDY
46	POGULA SANJAY KUMAR
47	BUDEVAR SHIVA KUMAR
48	POLYSETTY SHIVA SAI USHAKOYALA SHIVA SAI
50	KALKURI SHIVA SHANTH SHIVA TEJA DARAM
52	
53	GODAVARI SRI SAI AKHIL BANOTHU SRIKANTH
54	LANKALA SRI SANTH
55	GAMPA SUHASH
56	KETHANAPALLY SUSENA REDDY
57	SWAPNIL VAITLA
58	DAREDDY THULASI HUSEN REDDY
59	KOLA SRINIVAS
60	NARABOINA PAVAN KUMAR
61	KANDUKURI DEEPAK
62	D PURNACHANDAR
63	LANKA AKSHAYA
64	DHANAVATH ASHOK
65	NAGA DURGA NIRMALA SUBASH KANKATALA V
66	VADLAMUDI SAI CHARAN
67	KURRI ANITHA
68	FIRDOUS ANJUM
69	BURRI GOWTHAMI
70	V KRISHNA SREE
71	CHAKKA LAHARI
72	ESLAVATH MANASA
73	MUNNOLA POOJA
74	NAGAVELLI PRATHYUSHA
75	CHELLE SABHYATA
76	SINGIREDDY SAI NAGA KEERTHANA
77	BHEEMANADHUNI SAIMEGHANA
78	B SANDHYA
79	CHERUKU SANDHYA
80	PASHAM SHARATHDEEPIKA
81	REGU SHRUTHI
82	VINUKULA SUSHMA
83	KOLA THARUNI
84	KALE VAISHNAVI
85	DINTAKURTHI ABHINAY
86	POLU ABISHEK REDDY
87	YASA AKHIL
88	AKSHAY S R N S MARLA
89	AMUDALA ARAVIND REDDY
90	VAKITI ARJUN
91	G BHARGAV



92	SHAIK HADEEL	
93	THALARI HAREESH	
94	PAIDI HARISH	
95	SAMBARAJU JASHWANTH	
96	MUSHANOLLA KOUSHIK REDDY	
97	N LALU PRASAD	
98	MALLEPALLY MADHUSUDHANREDDY	
99	CHAPALAMADUGU MAHENDAR	
100	MOHAMMAD NIZAMUDDIN AREEF	
101	MOHAMMED AMAAN	
102	Y NIKHIL	
103	ADABALA PAVAN KUMAR	
104	Y PRANEETH	
105	RAHUL DHIR	
106	MANNEM RAVI TEJA	
107	TAKKAN ROHITH	
108	CH RUSHIKESH	
109	PATLOLLA SANDEEP KUMAR	
110	CHETKURI SHIVA	
111	POGULA SHIVAMANI	
112	PUNNA SHIVA TEJA	
113	SUPREETH AUTI	
114	K SURYA PRAKASH	
115	CHINDURALA THARUN TEJA	
116	TOKALA VISHNUVARDHAN	
117	ATIKETI VIVEK CHANDRA	
118	ARIGE YASHWANTH	
119	GOPU BALA JEEVAN REDDY	
120	G S S VARAPRASAD	
121	JAVVAJI THANUSRI	
122	AVISHETTY NAVEENA	
123	DARA AKHIL	
124	N P VENNELA	

- ➤ Civilization and Culture : civilization, Culture, and heritage, general characteristics of culture, importance of culture in human life, Cultural diversity, Aesthetics, Women seers, Indus culture, Indian cuisine,
- > Evaluation and Education System: Education in ancient, medieval and modern India, , subjects, Languages, Science and Scientists of ancient, medieval and modern India
- ➤ Linguistics & Wealth: Indian Languages and Literature: the role of Sanskrit, Paleography, Significance of scriptures to current society, Indian semantics and lexicography, Darsanas
- ➤ Engineering Art & Technology: Sculpture, Painting and Handicrafts, Indian Music, Iron and steel technology, Use of metals in medicinal preparations
- ➤ Synthesis of Science: Helio-centic system, Sulbasutras, Katapayadi, Hindu calendar, Scientific method applied to therapeutics, Fallacies, Tarka Induction &Deduction, Ayurvedic biology, Definition of health

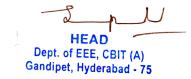
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Course 2: Industrial Exposure

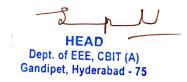
Code: CBIT/19EEV03

Duration: 30 Hours

SNO	Registered & completed student Name	Total no. of students
		registered & completed
1	K ABHIRAM	
2	G JASWANTH KUMAR YADAV	
3	PULIPATI KAUSHAL	
4	KUMMARI CHANDRAKALA	
5	PUTLA DHARANI	
6	GUJJA INDRANI	
7	KAVYA TAMMALI	
8	CHIMARLA KEERTHANA	
9	SOLIPURAM KEERTHANA REDDY	
10	KHYATI BHAREDWAJ	
11	JAGATHKARI LAXMIPRIYA	
12	KASHA MAHATHI	
13	MYAKA MANIDEEPIKA REDDY	
14	NAZIYA BEGUM	
15	P NEHASREE	
16	PRAVEENA BOBBALA	
17	BAKKAREDDY PRIYANKA	
18	ERPULA RANI	
19	BATTULA RASAGNA	
20	KANDANELLY SAHITHI PRIYA RATHOD	131
21	DARAPU SAI AKSHAYA	131
22	SHIVARATHRI SRAVANI	
23	NARAYANA SRINIDHI REDDY	
24	VATTIKONDA SUSHMITHA	
25	SANIKOMMU VAISHNAVI	
26	BURRA VARSHITHA	
27	THODUPUNURI VASAVI	
28	VINUTHNA REDDY GUTHA	
29	KANTHALA ADITH CHANDRA	
30	KULAKARNI ADITHYA	
31	MOHAMMED AMAAN FAROOQUI	
32	K CHINNA RAMUDU	
33	KOBBAI DILEEP KUMAR	
34	KSHITEISSH BHARADWAJ	
35	AGGADI MANI DEEP	
36	NABEEL KHAN	
37	NAMAN GUPTA	
38	AMANCHI NAVEEN	
39	NAVID PABANI	
40	NARAYANA NITHIN	



41	GUGGILLA RAGHAVESHWAR
42	MOTUPALLI RAMA KRISHNA SAI
43	ARRA RASHMITH REDDY
44	CHILLAMCHARLA SAI RAGHU
45	D SAI SIDHARTH KSHYAP
46	MOTHUKURI SAI SRINIVAS
47	VANGALA SAI SRUJAN
48	GUDIMALLA SANJAY
49	M SHANMUKHESH
50	BOGE SIDDARTH
51	SUHAS REDDY M
52	G TARUN
53	NUGURI TARUN
54	VEERAPRADYUN GONUGONDLA
55	KALVA VENU
56	KATAKAM VINAY KUMAR
57	CHENNA VINEETH
58	VISHWAS P
59	ZIYAD AHMED MOHAMMED
60	BIRRU VEDAVYAS
61	T KARTHIK
62	MUNJA YAMINI
63	RAMAVATH SAIKUMAR
64	AJAY KUMAR SAHANI
65	KURMA RAVI
66	SHAIK NEHA GULSHAN
67	PAPIGARI AKSHAY KUMAR
68	CHITLA PAVAN
69	G YASHWANTH KUMAR
70	BHARGAVI SINGAJOGI
71	CHELLA MEENAKSHI S
72	KAVYA PINNEBOINA
73	LOHITHA REDDY ANNADI
74	MANASVINI KOTTAPALLY
75	SURUKANTI NISHITHA
76	NISHMA REDDY KASTURI
77	RACHEL A
78	RISHITHA ARIKOTLA
79	SAI VARSHA MAKTHAL
80	SANDHYA KORRA
81	THUMU SNEHA BHANDHAVI
82	SOUMYA BANDLA
83	GUDIVENUKA SRAVANTHI
84	SADINENI SRAVANTHI
85	SANKARNENI SRAVYA
86	SREE VIDYA GOLLA
87	SUNITHA RANI PITLA
88	UMMAY SALMA
	ı



89	M ABHISHEK	
90	MUTHYALA ABHISHEKH	
91	AJAY GUNNALA	
92	MORE AKSHAY	
93	CHAKRAVARTHY DANGATLA	
94	CHERUPALLY CHARAN KUMAR	
95	DINESH BUKYA	
96	ESWAR TEJA CHAVA	
97	HARI KIRAN VAGIRI	
98	JAYANTH DARAMALLA	
99	JEEVAN KUMAR G	
100	GULLAPALLI LOKESH	
101	PANDULA MANIDEEP	
102	DONTHULA NAVEEN	
103	PRUDHVI MURUKUTLA	
104	RAKESH ANNAM	
105	SAIILOKESH REDDY NANDAVARAPU	
106	KOTHAKONDA SAI TEJA	
107	SAIKIRAN KOLLOJU	
108	LAKKARSU SAITEJA VARMA	
109	SHERANK DASARATH	
110	CHITTI SHIVA ANIMESH REDDY	
111	SOHAN KUMAR RUSTUMPET	
112	SRI SAI WENKAT NIZAMPATNAM	
113	SRI VAMSI DEEVI	
114	SRINIVAS GAURAV JAMALPUR	
115	MUTHYALA SUJITH REDDY	
116	SUMANTH SETTY	
117	TARUN CH NSNS	
118	DODDI UDAY SHANKAR	
119	VENKATA MANIKANTA SAI AMALAKANTI	
120	VENKATA SAI VARUN P	
121	THADURI VENKATESH BABU	
122	MOVVA VINAY	
123	BODDU YESHWANTH KUMAR	
124	VENKANNAGARI YOGESH	
125	DOKILE UMESH	
126	RAYABARAPU NAVYA	
127	VADDADI VIKAS	
128	VALUPADASU BUDDIK VARARAJ	
129	NENAVATH PRASHANTH	
130	GANASALA HEPSIBA RANI	
131	P CHAKRADHAR	

### 1.1 Introduction

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- 1.2 Kaleshwaram lift irrigation project
- 1.3 Gravity canals and lift irrigation
- 1.4 Online storage
- 1.5 Linking medigadda project to sripada yellampalli
- 1.6 Lakshmipur pump house
- 1.7 Sundilla pump house
- 1.8 Power
- 1.9 Electro mechanical equipment
- 1.10 Switch gear
- 1.11 Benefits of project

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#### CBIT/20CEV01

#### ENVIRONMENTAL IMPACT AND MONITORING

#### Course Objectives: To enable the student

- 1. Identify environmental problems arising due to engineering and technological activities and the science behind those problems.
- 2. Become aware about the importance of eco system and biodiversity for maintaining ecological balance
- 3. To identify the importance of interlinking of food chain
- 4. Learn about various attributes of pollution management and waste management practices.
- 5. To make the students contribute for capacity building of nation for arresting and/or managing environmental disasters.

#### Course Outcomes: At the end of the course, the student should have learnt

- 1. To define environment, identify the natural resources and ecosystems and contribute for the conservation of bio-diversity.
- 2. To suggest suitable remedial measure for the problems of environmental pollution and contribute for the framing of legislation for protection of environment.
- 3. To relate the social issues and the environment and contribute for the sustainable development.
- 4. To follow the environmental ethics.
- 5. To contribute for the mitigation and management of environmental disasters.

#### UNIT - I:

Environmental Studies: Definition, Scope and importance, need for public awareness.

**Natural resources:** Use and over utilization of Natural Resources - Water resources, Food resources, Forest resources, Mineral resources, Energy resources, Land resources.

#### UNIT – II:

**Ecosystems:** Concept of an ecosystem, structure and function of an ecosystem, role of producers, consumers and decomposers, energy flow in an ecosystem, food chains, food webs, ecological pyramids, Nutrient cycling, Biogeo chemical cycles, Terrestrial and Aquatic ecosystems.

#### UNIT - III:

**Biodiversity:** Genetic, species and ecosystem biodiversity, Bio-geographical classification of India, India as a Mega diversity nation. Values of biodiversity, hot-spots of biodiversity.

#### UNIT - IV:

**Environmental Pollution:** Cause, effects and control measures of air pollution, water pollution, marine pollution, soil pollution, noise pollution and Solid waste management, nuclear hazards

#### UNIT - V:

**Social issues and the environment:** Water conservation methods: Rain water harvesting and watershed management, Environmental ethics, Sustainable development and Climate change: Global warming, Ozone layer depletion, forest fires, and Contemporary issues.

#### **Text Books:**

- 1. Y. Anjaneyulu," Introduction to Environmental Science", B S Publications, 2004.
- 2. Suresh K. Dhameja, "Environmental Studies", S. K. Kataria& Sons, 2009.

#### **Suggested Reading:**

- 1. C. S. Rao," Environmental Pollution Control Engineering", Wiley, 1991.
- 2. S. S. Dara, "A Text Book of Environmental Chemistry & Pollution Control", S. Chand Limited, 2006.

PROFESSOR & HEAD
Department of Civil Engineering
Chaltanya Bharathi Institute of Technology
GANDIPET HYDERABAD-5000 075

CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY ENVIRONMENTAL IMPACT AND MONITORING - CBIT/20CEV01 LIST OF STUDENTS		
1601-19-732-001	AISHWARYA CHOUDARY	
1601-19-732-002	AKHILA SRIGADDE	
1601-19-732-003	ANUSHA RACHAPAKA	
1601-19-732-004	CHARVI PANYALA	
1601-19-732-005	CHIHNITHA KONTEMUKKULA	
1601-19-732-006	HARIKA MOKKA	
1601-19-732-007	KAMALA RAMA SRIKARI BHANDARAM	
1601-19-732-008	KHYATHI VARDHINI VANGALA	
1601-19-732-009	LIKHITA YANDAVA	
1601-19-732-010	MAHEEN SADIQ	
1601-19-732-011	MAHIMA DASARY	
1601-19-732-012	МАНІТНА КОТТЕ	
1601-19-732-013	NIKITHA GODISELA	
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1601-19-732-023	AKHIL RAJESH GOUD PACHIMATLA	
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1601-19-732-043	ROSHAN BAJJURI
1601-19-732-044	SACHIN MUDIGONDA
1601-19-732-045	SAI CHARAN NAGARAM
1601-19-732-047	SAI DARSHAN MEDISETTY
1601-19-732-048	SAI KAMAL ARUKALA
1601-19-732-049	SAI KIRAN NAIK AMGOTH
1601-19-732-050	SAI VAMSHI RAJU TELLAPURAM
1601-19-732-051	SAI VAMSI VINUKONDA
1601-19-732-052	SREE HARSHA GHANDIKOTA
1601-19-732-053	SRI MANJUNATHA VADDEPALLY
1601-19-732-054	SUHAS DASARI
1601-19-732-055	UMAKANTH DESHMUKH
1601-19-732-056	VAMSHI AMGOTH
1601-19-732-057	VENKAT SAKETH APPAJI
1601-19-732-058	VENKATA VIGNAN DOMALA
1601-19-732-059	VIJAY KUMAR VODDEPALLY
1601-19-732-060	VINAY MUNIGANTI
1601-19-732-301	GUNDEBOINA TULASI
1601-19-732-302	K MANIPAL
1601-19-732-303	PALLA DIVYA
1601-19-732-304	VASALA NITHYA
1601-19-732-305	SHAIK IBRAHIM
1601-19-732-306	BUTHAPALLY NANDINI
1601-19-732-061	ATUFA TANYEEM
1601-19-732-062	DEVI CHANDISHWARI MUSLAPURAM

1601-19-732-063	ESHRATH ANJUM
1601-19-732-064	MANASWINI ASA
1601-19-732-065	POOJITHA CHIPPALAPELLY
1601-19-732-066	PRASANNA MUTHINENI
1601-19-732-067	PRATHYUSHA SAIDU
1601-19-732-068	RISHITHA KOMMIDI
1601-19-732-069	SAI KEERTANA K
1601-19-732-070	SOWMYA GUNDUKADI
1601-19-732-071	SOWMYA LALAGARI
1601-19-732-072	SRI HARINI REDDY CHILUKA
1601-19-732-073	SWETHA KESAVARAPU
1601-19-732-074	SWETHA THUMMA
1601-19-732-075	VAISHNAVI DEVI PATNAM
1601-19-732-076	ABHILASH CHALLA
1601-19-732-077	ABHINAY BHONAGANI
1601-19-732-078	ABHISHEK YADAV BADRI
1601-19-732-079	ANJANEYA VARMA KANUMURI
1601-19-732-080	ASHIR JOSHUA TA
1601-19-732-081	CHARAN NAIK BANOTH
1601-19-732-082	CHIRAG D NANKANI
1601-19-732-083	DHANUSH PULI
1601-19-732-084	HARSHA VARDHAN VYAS AMBATI
1601-19-732-085	HRUSHIKESH REDDY G
1601-19-732-086	JAIVANTH KUMAR G
1601-19-732-087	JAYADEEP BATHINI
1601-19-732-088	KOUSHIK KARRA
1601-19-732-089	KRISHNAIAH DONGALA
1601-19-732-090	LOKESH KUMAR GUNTI
1601-19-732-091	LUKESH GAMPA
1601-19-732-092	MALLIKARJUN OSA
1601-19-732-093	MANISH KUMAR
1601-19-732-094	MANOJ KUMAR AMBATI
1601-19-732-095	MOHAMMED ABDUL QUADAR
1601-19-732-096	MOHAMMED AJMAL ALI
1601-19-732-097	MOHAMMED FASI AHMED

1601-19-732-098	NAVEEN NAIDU ALLA
1601-19-732-099	NIKHIL KUMAR K
1601-19-732-100	NITHINREDDY BOGIREDDY
1601-19-732-101	PRASHANTH KUMAR REDDY ANANTHA
1601-19-732-102	PRAVEEN KUMAR SANDYAPOGU
1601-19-732-103	RAHUL KARAN K R
1601-19-732-104	RAKESH PEDDINA
1601-19-732-105	RAVI MALLEVOINA
1601-19-732-106	ROHITH ALETI
1601-19-732-107	SAATHVIK CHERIPALLI
1601-19-732-108	SAI KUMAR SIRAMAINA
1601-19-732-109	SAI VINAY BOGA
1601-19-732-110	SATHWIK REDDY PASHYA
1601-19-732-111	SHIVA NARAYANA KONDAMEDI
1601-19-732-112	SREEJAN REDDY KANDI
1601-19-732-113	SUPREETH REDDY SAMPATH
1601-19-732-114	SWAMY NARAPAKA
1601-19-732-115	UDAY KIRAN REDDY PATNAM
1601-19-732-116	UDHAY GOUD D
1601-19-732-117	UTTAM SAI NAKKALA
1601-19-732-118	VENKATA KOWKUNTLA AKSHATH THIRUPATHI
1601-19-732-119	VENKATESH MARYADA
1601-19-732-120	YUVARAJA YALAMANCHILI
1601-19-732-307	VOODARI SATHWIKA
1601-19-732-308	MUDAM SRIKANTH
1601-19-732-309	GOVINDU SHIVANI
1601-19-732-310	LONKA SHIRISHA
1601-19-732-311	P ANVESH
1601-19-732-312	CHINTHAPALLI MANASA

# Department of Biotechnology

# 1.3 Curriculum Enrichment 2020-21

List of value added courses completed by BTech Biotechnology students during 2020-21

S.No	Tilte of the course	Code
1	Wild life Ecology	CBIT/20BTV026
2	Bio interface Engineering	CBIT/20BT V073
3	Biomechanics of Joints and Orthopaedic implants	CBIT/20BT V035
4	Biomedical Nanotechnology	CBIT/20BT V007
5	Cell culture technologies	CBIT/20BT V038
6	Computer Aided drug design	CBIT/20BT V032
7	Conservation Economics	CBIT/20BT V016
8	Drug delivery principles and Engineering	CBIT/20BT V033
9	Ecology and Environment	CBIT/20BT V027
10	Forest and their Management	CBIT/20BT V050
11	Human Molecular Genetics	CBIT/20BT V047
12	Introduction to Mechanobiology	CBIT/20BT V006
13	Introduction to Proteogenomics	CBIT/20BT V030
14	Introduction to proteomics	CBIT/20BT V031
15	Legal and regulatory issues in biotechnology	CBIT/20BT V044
16	Neuroscience of Human Movements	CBIT/20BT V024
17	Organic farming for sustainable Agriculture production	CBIT/20BT V005
18	Patent law for engineers and scientists	CBIT/20BT V043
19	Principle and Practices of process Equipment and plant design	CBIT/20BT V042
20	Structural Biology	CBIT/20BT V072
21	Functional Genomics	CBIT/20BT V034

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22	Technologies for clean and	
	Renewable energy	
	production	CBIT/20BT V041

# Wild life Ecology

**No.of enrolled Participants-7** 

**Duration of the Course: 12 Weeks** 

**ACADEMIC YEAR: 2020-21** 

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Name of the value added courses (with 30 or more contact hours) offered	Course code(if any)	Year of offering	No. of times offered during the same year	Duration of course in Hours	Number of students enrolled in the year	Number of Students completing the course in the year
Wild life	CBIT/20BTV026	2021	1	12 weeks/90	7	7
Ecology				Hours		

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### Wildlife Ecology

**Course Duration: 12 Weeks** 

Credits : 3

Week 1: Introduction

Week 2: Ecological structure

Week 3: Ecological interactions

Week 4: Ecological energetic

Week 5: Population Ecology

Week 6: Community Ecology

Week 7: Distribution & abundance

Week 8: Management of threatened species

Week 9: Human Ecology

Week 10: Ecology of change

Week 11: Applied Ecology

Week 12: Revision

#### **Books and references:**

1. Krebs, C. J. The experimental analysis of distribution and abundance. Ecology. New York: Harper and Row.2. Odum, E. P., & Barrett, G. W. Fundamentals of Ecology. Philadelphia: Saunders.3. Selected articles / papers as referred to in the lectures.

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# List of participants

S.No	Name of the student	Roll No
1	K. Anjana Srija	160118805003
2	Nalli Deepika	160118805005
3	M Jahanavi	160118805009
4	D Niveditha	160118805018
5	K. Sai Manasa	160118805023
6	Vishwanutha	160118805031
7	Malishetty Vijay Bhargav	160118805043

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**Bio interface Engineering** 

**No. of enrolled Participants-1** 

**Duration of the Course: 8 Weeks** 

**ACADEMIC YEAR: 2020-21** 

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Name of the value added courses (with 30 or more contact hours) offered	Course code(if any)	Year of offering	No. of times offered during the same year	Duration of course in Hours	Number of students enrolled in the year	Number of Students completing the course in the year
Bio	CBIT/20BT V073	2021	1	8 weeks/90	1	1
interface				Hours		
Engineering						

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### **Bio interface Engineering**

**Course Duration: 8 weeks** 

Credits : 2

Week 1: Intermolecular Forces

Week 2: Adhesion and Wetting phenomena.

Week 3: Characterization of interfaces

Week 4: Protein-surface Interactions

Week 5: Protein Aggregation

Week 6: Cell-surface interactions

Week 7: Surface modification and characterization

Week 8: Surface modification and characterization

#### **Books and References:**

- 1. J. N. Israelachvili, Intermolecular and Surface Forces, 3rd edition, Academic Press, 2011.
- 2. Willem Norde, Colloids and Interfaces in Life Sciences and Bio nanotechnology,2nd edition, CRC Press,2011.
- 3. W. Adamson, and A. P. Gast, Physical Chemistry of Surfaces, John Wiley, New York, 1997.

Dept. of Bio-Technology Chaltanya Sharatin Institute of Techno Gandipet, Hyderabad-500 075.

# List of participants

S.No	Name of the student	Roll No
1	Vishwanutha	160118805031

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Dept. of Bio-Technology

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**Biomechanics of Joints and Orthopaedic implants** 

**No.of enrolled Participants-1** 

**Duration of the Course: 8 Weeks** 

**ACADEMIC YEAR: 2020-21** 

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Name of the value added courses (with 30 or more contact hours) offered	Course code(if any)	Year of offering	No. of times offered during the same year	Duration of course in Hours	Number of students enrolled in the year	Number of Students completing the course in the year
Biomechanics of Joints and	CBIT/20BT V035	2021	1	8 weeks/90 Hours	1	1
Orthopaedic implants						

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### **Biomechanics of Joints and Orthopedic Implants**

**Course Duration:8 Weeks** 

Credits : 2

Week 1: Introduction Musculoskeletal system Bone, Muscle, Ligament, Tendon, Cartilage and

Meniscus - structure and function Anatomy of Synovial Joints - Hip, Knee, Shoulder, Elbow

Week 2: Biomechanics of Human Joints: (a) Hip Joint; (b) Knee Joint; (c) Shoulder Joint; (d) Elbow Joint

**Week 3:** Biomechanics of Gait cycle Gait Analysis Measurement techniques 3-D Motion analysis system – markers, cameras and force platform Lower extremity – hip musculoskeletal forces

**Week 4:** Joint Kinematics Principle of Forward and Inverse Dynamics Calculations on joint forces and moments Calculations on muscle forces Model-based estimation of musculoskeletal forces during movements

**Week 5:** Concepts of Stresses and Strain Bone structure - Cancellous and Cortical Bone Mechanical Behaviour of Bone Adaptation and Viscoelasticity Bone Anisotropy.

**Week 6:** Biomechanics of Joint Replacement – Hip, Knee, Shoulder, Spine Cemented and Cementless fixation Failure mechanisms of implants Implant Design Considerations

**Week 7:** Biomechanical modelling techniques and analysis Finite Element Analysis of bone and implant Bone Remodelling – formulation, algorithm, simulation Experimental validation of numerical models

**Week 8:** Bone Fracture Healing Tissue Differentiation Mechanoregulatory principle Mechanobiology based simulation of bone ingrowth around implants – acetabular and femoral components

#### **Books and references**

- (1) "Basic Biomechanics of the Musculoskeletal System" by Margareta Nordin and Victor H. Frankel
- (2) "Biomechanics and Motor Control of Human Movement" by David A. Winter
- (3) "Orthopaedic Biomechanics" by D.L. Bartel, D.T. Davy and T.M. Keaveny

Dept. of Bio-Technology Challenga Sharath Institute of Techno Gandipet, Hyderabad-500 075.

# List of participants

S.No	Name of the student	Roll No
1	K. Sai Manasa	160118805023

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**Biomedical Nanotechnology** 

No.of enrolled Participants- 2

**Duration of the Course: 4 Weeks** 

**ACADEMIC YEAR: 2020-21** 

Dept. of Bio-Technology Challenga Sharetill Institute of Techno Gandipet, Hyderabad-500 075.

Name of the value added courses (with 30 or more contact hours) offered	Course code(if any)	Year of offering	No. of times offered during the same year	Duration of course in Hours	Number of students enrolled in the year	Number of Students completing the course in the year
Biomedical	CBIT/20BT V007	2021	1	4 weeks/90	2	2
Nanotechnology				Hours		

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### **Biomedical Nanotechnology**

**Course Duration: 4 Week** 

Credits :1

**Week 1:** Introduction to nano, Nano-biomimicry, Synthesis of nanomaterials by physical and chemical methods, Synthesis of nanomaterials by biological methods, Characterisation of nanomaterials.

**Week 2:** DNA nanotechnology, Protein & glyco nanotechnology, Lipid nanotechnology, Bionanomachines, Carbon nanotube and its bio-applications.

**Week 3:** Nanomaterials for cancer diagnosis, Nanomaterials for cancer therapy, Nanotechnology in tissue engineering, Nano artificial cells, Nanotechnology in organ printing.

**Week 4:** Nanotechnology in point-of-care diagnostics, Nano pharmacology& drug targeting, Cellular uptake mechanisms of nanomaterials, In vitro methods to study antibacterial and anticancer properties of nanomaterials, Nanotoxicology.

#### **Books and references:**

- 1. Malsch, N.H., "Biomedical Nanotechnology", CRC Press. (2005).
- 2. Mirkin, C.A. and Niemeyer, C.M., "Nanobiotechnology II: More Concepts and Applications", Wiley-VCH. (2007).
- 3. Kumar, C. S. S. R., Hormes, J. and Leuschner C., "Nanofabrication Towards Biomedical Applications: Techniques, Tools, Applications, and Impact", WILEY -VCH Verlag GmbH & Co. (2005).
- 4. Lamprecht, A., "Nanotherapeutics: Drug Delivery Concepts in Nanoscience", Pan Stanford Publishing Pte. Ltd. (2009).
- 5. Jain, K.K., "The Handbook of Nanomedicine", Humana press. (2008).

Dept. of Bio-Technology Challenya Sharafill Innitiate of Techno Gandipet, Hyderabad-500 075.

# List of participants

S.No	Name of the	Roll No
	student	
1	K. Anjana Srija	160118805003
2	Mohith Arikatla	160118805037

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# **Introduction to Cell Culture Technologies**

**No. of enrolled Participants-5** 

**Duration of the Course: 8 Weeks** 

**ACADEMIC YEAR: 2020-21** 

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Name of the value added courses (with 30 or more contact hours) offered	Course code(if any)	Year of offering	No. of times offered during the same year	Duration of course in Hours	Number of students enrolled in the year	Number of Students completing the course in the year
Cell culture	CBIT/20BT V038	2021	1	8 weeks/90	5	5
technologies				Hours		

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### **Introduction to cell culture Technology**

**Course Duration: 8 Weeks** 

Credits : 2

Week 1: Introduction & biology of cultured cells

Week 2: Equipment's, aseptic techniques, safety protocols

Week 3: Culture vessels & media development

Week 4: Serum-free medium development & sterilization

Week 5: Primary culture, secondary culture, cloning & selection

Week 6: Cell separation, characterization, differentiation & transformation

Week 7: Contamination, cryo-preservation & cyto-toxicity

Week 8: Organo-typic culture & specialized cell culture techniques

Books and References: Nil

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# List of participants

S.No	Name of the student	Roll No
1	K. Anjana Srija	160118805003
2	M Jahanavi	160118805009
3	D Niveditha	160118805018
4	Mohith Arikatla	160118805037
5	Sucheta Rajaraman	160118805026

# **Computer Aided Drug Design**

**No.of enrolled Participants-1** 

**Duration of the Course: 8 Weeks** 

**ACADEMIC YEAR: 2020-21** 

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Name of the value added courses (with 30 or more contact hours) offered	Course code(if any)	Year of offering	No. of times offered during the same year	Duration of course in Hours	Number of students enrolled in the year	Number of Students completing the course in the year
Computer Aided drug	CBIT/20BT V032	2021	1	8weeks/90 Hours	1	1
design				TIOUIS		

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### **Computer Aided Drug Design**

**Course Duration: 8 Weeks** 

Credits : 2

Week 1: Introduction to drug discovery

Week 2: Structure and property

Week 3: ADME-rules

Week 4 : Force field/MM/QM

Week 5 : Boundary conditions/Conformation

Week 6: QSAR/Pharmacophore

Week 7: Enzymes/proteins structures/docking

Week 8 : PK/PD

#### **Books and references:**

1. Voit E (2012) A First Course in Systems Biology. Garland Science, 1/e. ISBN 0815344678 • Klipp E (2009) Systems biology: a textbook. Wiley-VCH, 1/e. ISBN 9783527318742 • Newman MEJ (2011) Networks: an introduction. Oxford Univ. Press. ISBN 9780199206650

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Gandipet, Hyderabad-500 075.

S.No	Name of the student	Roll No
1	Vishwanutha	160118805031

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## **Conservation Economics**

**No.of enrolled Participants- 11** 

**Duration of the Course: 12 Weeks** 

**ACADEMIC YEAR: 2020-21** 

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Name of the value added courses (with 30 or more contact hours) offered	Course code(if any)	Year of offering	No. of times offered during the same year	Duration of course in Hours	Number of students enrolled in the year	Number of Students completing the course in the year
Conservation	CBIT/20BT V016	2021	1	12 weeks/90	11	11
Economics				Hours		

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#### **Conservation Economics**

**Course Duration: 12 weeks** 

Credits : 3

Week 1: What is Economics?

Week 2: What is Conservation?

Week 3: Modern impacts necessitating conservation

Week 4: Threats to wildlife

Week 5: How can Economics help?

Week 6: Markets: Places where Economics works

Week 7: Markets, welfare and conservation

Week 8: Public sector and conservation

Week 9: Industrial organization and conservation

Week 10: Labour market economics and conservation

Week 11: Practical issues in Economics and Conservation

Week 12: Case Studies

#### **Books and references:**

- 1. Economics, Krugman and Wells
- 2. Economics, Hubbard & O'Brien
- 3. Principles of Economics, N. Gregory Mankiw
- 4.Basic Economics, Thomas Sowell

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S.No	Name of the student	Roll No
1	Nalli Deepika	160118805005
2	M Jahanavi	160118805009
3	A. Jahnavi	160118805010
4	Krishna Priya V	160118805014
5	D Niveditha	160118805018
6	K. Sai Manasa	160118805023
7	Sucheta Rajaraman	160118805026
8	S.Vishwanutha	160118805031
9	S Deepak Mohan	160118805034
	Reddy	
10	Mohith Arikatla	160118805037
11	Malishetty Vijay Bhargav	160118805043

# **Drug Delivery Principles and Engineering**

**No.of enrolled Participants-1** 

**Duration of the Course: 12 Weeks** 

**ACADEMIC YEAR: 2020-21** 

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Name of the value added courses (with 30 or more contact hours) offered	Course code(if any)	Year of offering	No. of times offered during the same year	Duration of course in Hours	Number of students enrolled in the year	Number of Students completing the course in the year
Drug delivery principles and Engineering	CBIT/20BT V033	2021	1	12 weeks/90 Hours	1	1

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### **Drug Delivery: Principles and Engineering**

**Course Duration: 12 Weeks** 

Credits : 3

Week 1: Pharmacokinetics: Bioavailability, Elimination, Therapeutic index.

Week 2: Prodrugs, Controlled release

Week 3: Polymers: Synthesis, properties, characterization, crystallinity and amorphousness

Week 4: Biopolymers: Natural and Synthetic, biocompatibility, Biodegradation, commonly used biopolymers

Week 5: Polymer-Drug conjugates, PEGylation

Week 6: Diffusion controlled systems, Ficks laws, Reservoir systems, non-erodible matrix systems, Bio-erodible Systems

Week 7: Hydrogels: Physical or chemical, pore-size calculation, in-situ crosslinking

Week 8: Nano and Micro-particles: Dendrimers, Liposomes, Micelles

Week 9: Metal and polymeric particles, effect of particle shape, charge and elasticity

Week 10: Protein Adsorption and tissue engineering, Drug delivery in tissue engineering

**Week 11:** Implant associated infections, Route specific delivery: Oral, Subcutaneous, Intramuscular, transdermal, inhalation, intravenous.

**Week 12:** Vaccines, Cancer vaccines, Cell and gene delivery, Smart responsive rug delivery, Targeted drug delivery, Nanotoxicology and market translation.

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S.No	Name of the student	Roll No
1	Vishwanutha	160118805031

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**Ecology and Environment** 

**No.of enrolled Participants-2** 

**Duration of the Course: 8 Weeks** 

**ACADEMIC YEAR: 2020-21** 

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Name of the value added courses (with 30 or more contact hours) offered	Course code(if any)	Year of offering	No. of times offered during the same year	Duration of course in Hours	Number of students enrolled in the year	Number of Students completing the course in the year
Ecology and	CBIT/20BT V027	2021	1	8 weeks/90	2	2
1					I	
Environment				Hours		

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### **Ecology and Environment**

**Course Duration: 8 Weeks** 

Credits : 2

**Week 1**: Dr. B.S. Murty -Introduction (1), Sustainability Definition / Goals, Climate Change (2), Case Studies (3) (Eg: Dams, Chemicals, e-waste, IOT, Landfill siting etc)

Week 2: Dr. Sudhir Chella Rajan-Sustainability and Economics (3), Sustainability and Ethics (3)

**Week 3:** Dr. Ligy Philip-(Water Quality/ Waste Management), Water Quality and Treatment (3), Waste Management and Treatment (3)

**Week 4**: Dr. B. S. Murty (Water Management/ Resources), UrbanDrainage, Water Resource Management, Impact of Climate Change

Week 5: Dr. Srinivas Jayanti (Energy)-Energy Demand / Resources (1), Pollution from Energy generation (1), Energy and Climate Change (Global Warming) (1), Energy and Sustainability (1), Long Range and Short Range Solutions (1)(Global vs. India)

**Week 6**: Dr. R. Ravi Krishna-Risk Assessment Definition (1), Pollutant Pathways / Safety/ Exposure (1), Liability /Examples (1), Life Cycle Assessment (2), Environmental Management and LCA (1)

Week 7: Dr. Sudhir Chella Rajan-Urban Planning / Sprawl (1), Challenges in Urban Planning, Transport (1), Energy (Smart Grid) (1), Waste (1), Governance (1)

**Week 8**: Dr. Susy Varughese / Dr. Parag Ravindran-Ecology – definitions / Systems (1), Biodiversity (1), Examples of Historical Impact of economy on Ecology, Restoration / Ecological Engineering

**Week 9**: Dr. Ligy Philip / Dr. Ravi Krishna -Solid Waste Management, Hazardous Waste Management.

#### **Books and references:**

1. Wrap up Emphasis on Climate Change and Adaptation

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S.No	Name of the student	Roll No
1	Nalli Deepika	160118805005
2	S.Vishwanutha	160118805031

**Forest and Their Management** 

**No.of enrolled Participants- 10** 

**Duration of the Course: 12 Weeks** 

**ACADEMIC YEAR: 2020-21** 

Fig. 6 15.6 Dept. of Bio-Technology Challenga Bharathi Institute of Techno Gandipet, Hyderabad-500 075.

Name of the value added courses (with 30 or more contact hours) offered	Course code(if any)	Year of offering	No. of times offered during the same year	Duration of course in Hours	Number of students enrolled in the year	Number of Students completing the course in the year
Forest and their Management	CBIT/20BT V050	2021	1	12weeks/90 Hours	10	10

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### **Forests and Their Management**

**Course Duration: 12 weeks** 

Credits : 3

Week 1: Introduction

Week 2: Basics of silviculture

Week 3: Forest soils

Week 4: Forest mensuration

Week 5: Forest surveying

Week 6: Forest protection

Week 7: Silvicultural management - I

Week 8: Silvicultural management - II

Week 9: Logging and yield

Week 10: Silvicultural practices

Week 11: Newer trends in forestry

Week 12: Revision

#### **Books and references:**

1. Principles and practices of Silviculture by S. S. Bist

2. Forest soils by Wilde

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Challenge Sharetin Institute of Techno
Gandipet, Hyderabed-500 075.

S.No	Name of the student	Roll No
1	M Jahanavi	160118805009
2	A. Jahnavi	160118805010
3	Krishna Priya V	160118805014
4	D Niveditha	160118805018
5	K. Sai Manasa	160118805023
6	Sucheta Rajaraman	160118805026
7	S.Vishwanutha	160118805031
8	S Deepak Mohan	160118805034
	Reddy	
9	Malishetty Vijay	160118805043
	Bhargav	
10	Mohith Arikatla	160118805037

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# **Human Molecular Genetics**

No.of enrolled Participants- 4

**Duration of the Course: 4 Weeks** 

**ACADEMIC YEAR: 2020-21** 

1-15-0 Dept. of Bio-Technology Challenga SharafM Innsitute of Techno Gandipet, Hyderabad-500 075.

Name of the value added courses (with 30 or more contact hours) offered	Course code(if any)	Year of offering	No. of times offered during the same year	Duration of course in Hours	Number of students enrolled in the year	Number of Students completing the course in the year
Human Molecular Genetics	CBIT/20BT V047	2021	1	4 weeks/90 Hours	4	4

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#### **Human Molecular Genetics**

**Course Duration: 4 Weeks** 

Credits: 1

**Week 1:** Fundamentals of central dogma (DNA, RNA and proteins; mutations), Chromosome structure and function (organization; structure-function relationship; chromosome abnormalities).

Week 2: Genes in pedigree (Mendelian pedigree patterns, complications to pedigree patterns), DNA cloning and hybridizationtechniques (vector-based cloning; nuclei acid hybridizations; PCR-based DNA analyses)

**Week 3:** Mutation and instability of human DNA (mutation and polymorphism; pathogenic mutations, repeat expansions), Molecularpathology (types of mutations; animal models for human disease)

Week 4: Identifying human disease genes (functional cloning versus positional cloning; mutation screening), Complex diseases; The Human Genome and HapMap projects

#### **Books and references:**

1. Human Molecular Genetics 4 Tom Strachan, Andrew P. Read Garland Science/Taylor & Francis Group, 2011

Dept. of Bio-Technology Challanya Sharatil Instituta of Techno Gandipet, Hyderabad-500 075.

S.No	Name of the	Roll No
	student	
1	A. Jahnavi	160118805010
2	S Deepak Mohan	160118805034
	Reddy	
3	Mohith Arikatla	160118805037
4	Malishetty Vijay	160118805043
	Bhargav	

計画人 Dept. of Bio-Technology Chaffenya Sharatifi Instituta of Techno Gandipet, Hyderabad-500 075.

# Introduction to Mechanobiology

**No.of enrolled Participants-1** 

**Duration of the Course: 8 Weeks** 

**ACADEMIC YEAR: 2020-21** 

0-15-0 Dept. of Bio-Technology Challenga SharesiM Institute of Techno Gandipet, Hyderabad-500 075.

Course code(if any)	Year of offering	No. of times offered during the same year	Duration of course in Hours	Number of students enrolled in the year	Number of Students completing the course in the year
CBIT/20BT V006	2021	1	8 weeks/90 Hours	1	1
	any)	any) offering	Course code(if any)  Year of offering  times offered during the same year	Course code(if any)  Year of offering  times offered during the same year  CBIT/20BT V006  Year of offered during the same year  EXECUTE: The course in Hours  8 weeks/90	Course code(if any)  Year of offering  Year of offered during the same year  CBIT/20BT V006  Year of offered during the same year  No. of times offered course in Hours enrolled in the year  8 weeks/90  1

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### **Introduction to Mechanobiology**

**Course Duration: 8 Weeks** 

Credits : 3

#### Week 1

Lecture 1: Need to study Mechanobiology

Lecture 2: Cell as a Tent, individual components

Lecture 3: Cell-ECM crosstalk

Lecture 4: ECM proteins: Collagen

Lecture 5: Measuring properties of collagen networks

#### Week 2

Lecture 6: Properties of collagen networks

Lecture 7: Rheology

Lecture 8: Rheology of biopolymer networks

Lecture 9: Atomic Force Microscopy (AFM)

Lecture 10: Design of protein constructs for AFM

#### Week 3

Lecture 11: Protein unfolding using AFM

Lecture 12: Protein unfolding using AFM

Lecture 13: Focal adhesions: focal adhesion proteins

Lecture 14: Focal adhesion organization

Lecture 15: Focal adhesions: role of forces

#### Week 4

Lecture 16: Cytoskeleton: Actin

Lecture 17: Force-velocity relationships of actin networks

Lecture 18: Mesenchymal cell migration

Lecture 19: Actin dynamics during mesenchymal migration

Lecture 20: Actin dynamics during mesenchymal migration

#### Week 5

Lecture 21: Adhesion Independent Migration

Lecture 22: Adhesion Independent & Collective Cell Migration

Lecture 23: Collective Cell Migration

Lecture 24: Mechanobiology of Stem Cell Fate - I

Lecture 25: Mechanobiology of Stem Cell Fate - II

#### Week 6

Lecture 26: Mechanobiology of Stem Cell Fate - III

Lecture 27: Mechanobiology of Diseases: Cancer I

Lecture 28: Mechanobiology of Diseases: Cancer II

Dept. of Bio-Technology Challenga Shareim Institute of Techno Gandipet, Hyderabad-500 075. Lecture 29: Mechanobiology of Diseases: Cancer III

Lecture 30: Mechanobiology of Diseases: Atherosclerosis & Hypertension

#### Week 7

Lecture 31: Mechanobiology of Diseases: Muscular Dystrophy

Lecture 32: Nuclear Mechanotransduction: LINC complex

Lecture 33: Nuclear Mechanotransduction: LINC complex in cell migration

Lecture 34: Nuclear Mechanotransduction: Gene regulation

Lecture 35: Mechanical Forces & DNA damage

#### Week 8

Lecture 36: Techniques in Mechanobiology: Hydrogels

Lecture 37: Techniques in Mechanobiology: AFM

Lecture 38: Techniques in Mechanobiology: Traction Force Microscopy, Trypson Deadhesion

& Laser Ablation

Lecture 39: Techniques in Mechanobiology: Microfabrication

Lecture 40: Techniques in Mechanobiology: FRE

#### **Books and references:**

- 1. 1.Introduction to Cell mechanics and Mechanobiology, Christopher. R. Jacobs (Garland Science)
- 2. 2.Cellular and biomolecular mechanics and mechanobiology, Editors: Gefen, Amit (Springer)

AHEAD
Dept. of Bio-Technology
Challenga SharalM Institute of Techno
Gandipet, Hyderabad-500 075.

S.No	Name of the student	Roll No	
1	K. Sai Manasa	160118805023	

計画人 Dept. of Bio-Technology Chattenya SharatiM Institute of Techno Gandipet, Hyderabad-500 075.

# **Introduction to Proteogenomics**

**No.of enrolled Participants- 4** 

**Duration of the Course: 12 Weeks** 

**ACADEMIC YEAR: 2020-21** 

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Name of the value added courses (with 30 or more contact hours) offered	Course code(if any)	Year of offering	No. of times offered during the same year	Duration of course in Hours	Number of students enrolled in the year	Number of Students completing the course in the year
Introduction to	CBIT/20BT V030	2021	1	12	4	4
Proteogenomics				weeks/90		
				Hours		

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### **Introduction to Proteogenomics**

**Course Duration: 12 Weeks** 

**Credits: 3** 

Week 1: Proteogenomics overview- Part I, Proteogenomics overview- Part II, Introduction to Genomics- Part II: Gene sequencing and mutations Introduction to Genomics-Part II: Sequence Part III: Transcriptome, SL1: Advancement in Cancer Genomics, SL2: Advancement in Cancer Genomics.

**Week 2:** Introduction to Genomics IV: Epigenome, Introduction to Genomics: cBioPortal, Genotype, Gene expression & Phenotype - Part l&ll, An overview of NGS technology, SH1: NGS-Sequencing by synthesis, SH2: NGS- Sequencing by synthesis.

**Week 3:** Introduction to Proteomics, Proteomics: Sample Prep & Protein Quantification, Proteomics: Sample Prep & Protein Quantification (Hands-on), Introduction to MS-based Proteomics- Part 17 ll, SL 3: Applications of NGS – Ion Torrent, SL4: Applications of NGS – Ion Torrent.

**Week 4:** Introduction to MS-based Proteomics- Part I&ll (Hands-on), I Data analysis: Normalization, Data analysis: Batch Correction and Missing values, Data analysis: Statistical Tests, SH3: NGS- Ion Torrent, SH4: NGS- Ion Torrent.

**Week 5:**Machine learning and Clustering, Hypothesis testing, ProTIGY- Part I & II, Proteogenomics approach to unravel proteoforms, SL5 &SL6: Genomic Analysis using Droplet PCR,

**Week 6:** Workflow to Automated Data Processing, Introduction to Fire Cloud, Fire Cloud and Data Model, Bioinformatics solutions for 'Big Data' Analysis- Part I & II, SH5: Genomic Analysis using Droplet PCR, SH6: Genomic Analysis using Droplet PCR

Week 7: Data Science infrastructure management- Part I,ll & III, DIA-SWATH Atlas-Part I&II, SL7: Introduction to Targeted Proteomics, SH7: Data Analysis using Skyline.

Week 8: Human Protein Atlas-Part I Clinical, Human Protein Atlas-Part II, Affinity based proteomics & HPA, Clinical Considerations for OMICS-

Part I, Considerations for OMICS- Part II, SL8: Proteomics: PTMs, SL9: Clinical Proteomics.

**Week 9:** Introduction to Proteogenomics-Part I &ll Sequence centric proteogenomics, Gene Variant Analysis, Proteomics in Clinical studies, SH8: ProTIGY.

Dept. of Bio-Technology Challenga Sharatid Institute of Techno Gandipet, Hyderabad-500 075. **Week 10:** Supervised Machine learning- Predictive Analysis Part I, Supervised Machine learning- Predictive Analysis Part II, Supervised Machine learning- Marker Selection, Gene Set Analysis using Web Gestalt-Part I, Gene Set Analysis using Web Gestalt- Part II, SH9: Supervised Machine Learning.

Week 11: Biological Network Analysis- Part I, Biological Network Analysis- Part II, Mutation and Signaling - Part I, Mutation and Signaling- Part II, Pathway Enrichment, SH10: Pathway Enrichment and Network Analysis.

Week 12: Gene Set Enrichment Analysis (GSEA), Pathway enrichment: GSEA, Linked Omics, Linked Omics (Hindson), Proteogenomics Conclusions, SL10: Topics in Proteogenomics- Malaria and Cancer case study

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Gandipet, Hyderabad-500 075.

S.No	Name of the	Roll No
	student	
1	K. Anjana Srija	160118805003
2	K. Sai Manasa	160118805023
3	S Deepak Mohan Reddy	160118805034
4	Mohith Arikatla	160118805037

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# **Introduction to proteomics**

**No.of enrolled Participants-1** 

**Duration of the Course: 8 Weeks** 

**ACADEMIC YEAR: 2020-21** 

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Name of the value added courses (with 30 or more contact hours) offered	Course code(if any)	Year of offering	No. of times offered during the same year	Duration of course in Hours	Number of students enrolled in the year	Number of Students completing the course in the year
Introduction to proteomics	CBIT/20BT V031	2021	1	8 weeks/90 Hours	1	1

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### **Introduction to Proteogenomics**

**Course Duration: 12 Weeks** 

**Credits: 3** 

Week 1: Proteogenomics overview- Part I, Proteogenomics overview- Part II, Introduction to Genomics- Part II: Gene sequencing and mutations Introduction to Genomics-Part II: Sequence Part III: Transcriptome, SL1: Advancement in Cancer Genomics, SL2: Advancement in Cancer Genomics.

**Week 2:** Introduction to Genomics IV: Epigenome, Introduction to Genomics: cBioPortal, Genotype, Gene expression & Phenotype - Part l&ll, An overview of NGS technology, SH1: NGS-Sequencing by synthesis, SH2: NGS- Sequencing by synthesis.

**Week 3:** Introduction to Proteomics, Proteomics: Sample Prep & Protein Quantification, Proteomics: Sample Prep & Protein Quantification (Hands-on), Introduction to MS-based Proteomics- Part 17 ll, SL 3: Applications of NGS – Ion Torrent, SL4: Applications of NGS – Ion Torrent.

**Week 4:** Introduction to MS-based Proteomics- Part I&ll (Hands-on), I Data analysis: Normalization, Data analysis: Batch Correction and Missing values, Data analysis: Statistical Tests, SH3: NGS- Ion Torrent, SH4: NGS- Ion Torrent.

**Week 5:**Machine learning and Clustering, Hypothesis testing, ProTIGY- Part I & II, Proteogenomics approach to unravel proteoforms, SL5 &SL6: Genomic Analysis using Droplet PCR,

**Week 6:** Workflow to Automated Data Processing, Introduction to Fire Cloud, Fire Cloud and Data Model, Bioinformatics solutions for 'Big Data' Analysis- Part I & II, SH5: Genomic Analysis using Droplet PCR, SH6: Genomic Analysis using Droplet PCR

Week 7: Data Science infrastructure management- Part I,ll & III, DIA-SWATH Atlas-Part I&II, SL7: Introduction to Targeted Proteomics, SH7: Data Analysis using Skyline.

**Week 8:** Human Protein Atlas-Part I Clinical, Human Protein Atlas-Part II, Affinity based proteomics & HPA, Clinical Considerations for OMICS-Part I, Considerations for OMICS- Part II, SL8: Proteomics: PTMs, SL9: Clinical Proteomics.

Week 9: Introduction to Proteogenomics-Part I &ll Sequence centric proteogenomics, Gene Variant Analysis, Proteomics in Clinical studies, SH8: ProTIGY.

Dept. of Bio-Technology Challanya Sharatid Instituta of Techno Gandipet, Hyderabad-500 075. Week 10: Supervised Machine learning- Predictive Analysis Part I, Supervised Machine learning- Predictive Analysis Part II, Supervised Machine learning- Marker Selection, Gene Set Analysis using Web Gestalt-Part I, Gene Set Analysis using Web Gestalt- Part II, SH9: Supervised Machine Learning.

**Week 11:** Biological Network Analysis- Part I, Biological Network Analysis- Part II, Mutation and Signaling - Part I, Mutation and Signaling- Part II, Pathway Enrichment, SH10: Pathway Enrichment and Network Analysis.

Week 12: Gene Set Enrichment Analysis (GSEA), Pathway enrichment: GSEA, Linked Omics, Linked Omics (Hindson), Proteogenomics Conclusions, SL10: Topics in Proteogenomics- Malaria and Cancer case study

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Challenya SharalM Innitiate of Techno

Gandipet, Hyderabad-500 075.

S.No	Name of the student	Roll No
1	S Deepak Mohan	160118805034
	Reddy	

# Legal and Regulatory Issues in Biotechnology

**No.of enrolled Participants- 1** 

**Duration of the Course: 4 Weeks** 

**ACADEMIC YEAR: 2020-21** 

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Name of the value added courses (with 30 or more contact hours) offered	Course code(if any)	Year of offering	No. of times offered during the same year	Duration of course in Hours	Number of students enrolled in the year	Number of Students completing the course in the year
Legal and regulatory issues in biotechnology	CBIT/20BT V044	2021	1	4 weeks/90 Hours	1	1

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#### Legal and Regulatory Issues in Biotechnology

**Course Duration: 4 Weeks** 

Credits :1

Week-1: Regulation of Biotechnology Research.

Week-2: Intellectual Property Rights and Life sciences (Agriculture, Pharma, Biotech)

Week-3: Biotech Product commercialization: Regulatory Approval Process

Week-4: Understanding technology transfer in biotech sector

#### **Books and references:**

- 1. Bucknell Duncan (ed.), I Pharmaceutical, Biotechnology and Chemical Inventions (Oxford University Press, 2011).
- 2. Cook M. Trevor, Pharmaceutical Biotechnology and the Law (Lexis Nexis, 2d ed. 2009).
- 3. Cook M.Trevor, The Protection of Regulatory Data In Pharmaceutical And Other Sectors (Sweet and Maxwell, 2000).
- 4. Hardcastle Rohan, Law and The Human Body; Property Rights, Ownership and Control (Hart Publishing, 2007).
- 5. Valverde J.L. (ed.), Key Issues in Pharmaceutical Law (IOS Press, Vol. 9 2009).
- 6. Drexl Josef, Nari Lee (ed.), Pharmaceutical Innovation, Competition and Patent Law; A Trilateral Perspective (Edward Elgar, 2013),
- 7. Verkey Elizabeth, Law of Plant Varieties Protection, 30-32 (Eastern Book Company, 1st ed. 2007).
- 8. Herring Jonathan, Medical Law & Ethics (Oxford University Press, 5th Ed., 2014).
- 9. Ventose Eddy, Medical Patent law- The Challenges of Medical Treatment (Edward Elgar, 2011).
- 10. Krattiger Anatole, Mahoney T. Richard, et.al., II Intellectual Property Management in Health and Agricultural Innovation; A handbook of best practices (MIHR, Oxford Center for Innovation, 2007). 11. Emily Jackson, Medical Law, text, cases and Materials, (Oxford University Press, 4th ed. 2013)
- 11. Holy F Lynch, Effy Vayena and Urs Gasser, Big data, Health Law and Bioethics, Edited by I. G. Cohen, (Cambridge University Press, 2018)

i → E → O Dept. of Bio-Technology Challenya Bharaim Instituta of Techno Gandipet, Hydarabad-500 075.

S.No	Name of the student	Roll No
1	Sucheta Rajaraman	160118805026

P-FEAD

Dept. of Bio-Technology

Challenga Sharathl Institute of Techno

Gandipet, Hyderabed-500 075.

## **Neuroscience of Human Movements**

**No.of enrolled Participants- 1** 

**Duration of the Course: 12 Weeks** 

**ACADEMIC YEAR: 2020-21** 

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Gandipet, Hyderabad-500 075.

Name of the value added courses (with 30 or more contact hours) offered	Course code(if any)	Year of offering	No. of times offered during the same year	Duration of course in Hours	Number of students enrolled in the year	Number of Students completing the course in the year
Neuroscience of Human Movements	CBIT/20BT V024	2021	1	12 weeks/90 Hours	1	1

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#### **Neuroscience of Human Movements**

**Course Duration: 12 Weeks** 

**Credits: 3** 

Week 1: Introduction, Membrane Physiology, Nernst Equation, GHK Equation, Action potential

Week 2: Neuromuscular Junction, Skeletal Muscles

Week 3: Skeletal muscles, Motor Units

Week 4: Receptors, Muscle Spindles, Golgi Tendon Organs, Spinal control

Week 5: Monosynaptic, Oligosynaptic & Polysynaptic reflexes,

**Week 6:** Pre-programmed reactions, Spinal control, Overview of motor control system, Primary Motor cortex—Part 1

Week 7: Primary Motor cortex – Part 2, Lesions, Brain Machine interfaces

Week 8: Primary Motor Cortex – Part 3, Role of Cerebellum in movement control

Week 9: Role of Cerebellum in movement control

Week 10: Parietal & Pre-motor cortex

Week 11: Role of Basal Ganglia in movement control

Week 12: Role of Basal Ganglia in movement control

#### **Books and references:**

1. Kandel & Schwartz, Principles of Neural Science, 2012, McGraw-Hill.

Dept. of Bio-Technology Challenga Sharatin Institute of Techno Gandipet, Hyderabad-500 075.

S.No	Name of the student	Roll No
1	Sucheta Rajaraman	160118805026

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Chaffenya SharatM Institute of Techno
Gandipet, Hyderabad-500 075.

## **Organic Farming for Sustainable Agriculture Production**

**No.of enrolled Participants- 1** 

**Duration of the Course: 8 Weeks** 

**ACADEMIC YEAR: 2020-21** 

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Name of the value added courses (with 30 or more contact hours) offered	Course code(if any)	Year of offering	No. of times offered during the same year	Duration of course in Hours	Number of students enrolled in the year	Number of Students completing the course in the year
Organic farming for sustainable Agriculture production	CBIT/20BT V005	2021	1	8 weeks/90 Hours	1	1

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### Organic farming for Sustainable AgriculturalProduction

**Course Duration: 8Weeks** 

Credits : 2

- Week 1: Organic Farming: Concepts and principles of organic farming
- Week 2: Key indicators of sustainable agriculture, organic farming and climate change
- **Week 3:** Input management; compost production, vermicomposting, Compost quality, Compost utilization and marketing
- Week 4: Organic crop management: field crops, horticulture and plantation crops
- Week 5: Plant protection measures, biopesticides, natural predators, cultural practice
- Week 6: Rotation design for organic system, Transition to organic agriculture, farming system
- **Week 7:** Quality analysis of organic foods, Antioxidants and their natural source, organic food and human health
- Week 8: Standards of organic food and marketing

Books and references: Nil

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S.No	Name of the student	Roll No
1	K. Anjana Srija	160118805003

i-HEA. (b)
Dept. of Bio-Technology
Challenga SharatiM Institute of Techno
Gandipet, Hyderabed-500 075.

# **Patent Law for Engineers and Scientists**

**No.of enrolled Participants- 3** 

**Duration of the Course: 12 Weeks** 

**ACADEMIC YEAR: 2020-21** 

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Name of the value added courses (with 30 or more contact hours) offered	Course code(if any)	Year of offering	No. of times offered during the same year	Duration of course in Hours	Number of students enrolled in the year	Number of Students completing the course in the year
Patent law for engineers and scientists	CBIT/20BT V043	2021	1	12 weeks/90 Hours	3	3

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### **Patent Law for Engineers and Scientists**

**Course Duration: 12 Weeks** 

Credits : 3

Week 1: Introduction to the Indian Patent System Patent Laws as Concepts; Understanding the Patents Act, 1970; Understanding the Patents Rules, 2003; Preliminary Sections; Preliminary Rules; What's New in the Patents (Amendment) Rules, 2016; Easy way to read the Patents Act and Rules

Week 2:Patentability of Inventions Statutory Exceptions to Patentability; Novelty and Anticipation; Inventive Step; Capable of Industrial Application; Person Skilled in the Art

Week 3:Patent Specification Provisional and Complete Specifications; Structure of a Patent Specification—Title, Abstract, Description, Claims, etc.; Reading a Patent Specification—Fair basis, Enabling Disclosure, Definiteness, Priority; Introduction to Patent Drafting.

**Week 4**:Patent Prosecution: Patent Applications Patent Application—Who Can Apply, True and First Inventor, How to Make a Patent Application, what to include in a Patent Application, Types of Patent Applications, Patents of Addition, Dating of Application;

**Week 5**:Patent Prosecution: Publication and Examination - I Publication of Application; Request for Examination; Examination of Application—First Examination Report.

**Week 6**:Patent Prosecution: Publication and Examination – II Expedited Examination of Application; Search for Anticipation—Procedure, withdrawal of Application; Consideration of Report of Examiner.

Week 7:Patent Prosecution: Powers of Controller Powers of Controller—Examination Stage, Consideration of report by examiner, Refuse or Amend Applications, Division of Applications, Dating of Application, Anticipation, Potential Infringement; Putting Applications in Order; Amendments during Prosecution

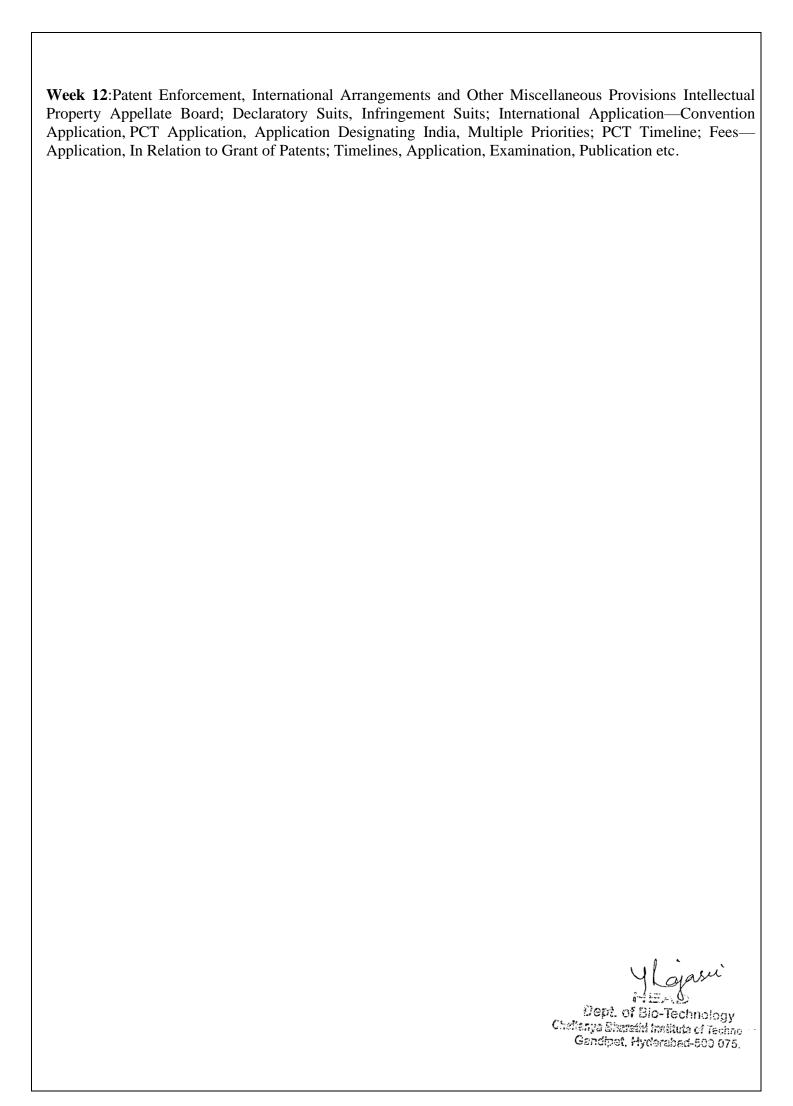
**Week 8**:Patent Prosecution: Opposition Pre-grant opposition; post-grant opposition; Wrongful obtaining of invention; Mention of Inventor; Opposition in General.

**Week 9**:Patent Prosecution: Practice at the Patent Office- I Secrecy Provisions; Grant of Patents; Rights Conferred by Grant; Rights of Co-Owners; Term of Patent; Restoration of Lapsed Patents;

Week 10:Patent Office and Patent Prosecution, Surrender; Revocation—Grounds for Revocation; Register of Patents, Patent Office and its Establishment; Patent Agents; Use and Acquisition by Government; Penalties.

**Week 11**:Compulsory Licensing Compulsory Licensing—Working of Patents, Grounds for Grant of Compulsory License, Revocation; Patent Licensing;

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### **Books and references**

- Feroz Ali, The Law of Patents, LexisNexis
- Ronald D. Slusky, Invention Analysis and Claiming A Patent Lawyer's Guide, Second Edition, American Bar Association, 2012.
- Feroz Ali, The Touchstone Effect The Impact of Pre-grant Opposition on Patents, LexisNexis, 2009.

#-HEAD
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Challenya Sharathi Institute of Techno
Gandipet, Hyderabad-500 075.

S.No	Name of the	Roll No
	student	
1	Sucheta Rajaraman	160118805026
2	S Deepak Mohan	160118805034
	Reddy	
3	Malishetty Vijay	160118805043
	Bhargav	

6-4 EE. €. Dept. of Bio-Technology Chafferya SharafM Institute of Techno Gandipet, Hyderabad-500 075.

## **Principle and Practices of Process Equipment and Plant Design**

No.of enrolled Participants- 2

**Duration of the Course: 12 Weeks** 

**ACADEMIC YEAR: 2020-21** 

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Name of the value added courses (with 30 or more contact hours) offered	Course code(if any)	Year of offering	No. of times offered during the same year	Duration of course in Hours	Number of students enrolled in the year	Number of Students completing the course in the year
Principle and Practices of	CBIT/20BT V042	2021	1	12weeks/90 Hours	2	2
process						
Equipment and plant						
design						

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#### Principles and Practices of Process Equipment and Plant design

**Course Duration: 12 Weeks** 

Credits : 3

Week-1: Introduction to Plant Design (2); Introduction to Mass transfer Equipment 1); Phase Equilibrium

**Week-2**: Distillation – Fractionation (4); Design Problem (1)

Week-3: Flash Distillation (1); Batch Distillation (3); Design Problem

Week-4: Absorption (2); Adsorption (2); Design Problem

Week-5: Liquid-Liquid Extraction - 3; Column Internals – 2 [Sieve (1), Valve (1)]

Week-6: Column Internals contd. - Bubble Cap (2); Packed column (1); Design Problem (2)

Week-7:Heat Exchanger: Introduction (1); Double Pipe HE (2); S&T HE (2)

Week-8: S&T HE contd. (1); Design Problem (1+2); Heat Exchanger Network (1)

Week-9: Heat Exchanger Network (3); Design Problem (2)

Week-10: Plant hydraulics: Pumps (2) Compressors (2), Pipeline (1)

Week-11: Pressure Vessels (2); Design Problem (2); Process Utilities (1)

Week-12: Safety (2), Process Design Package (3)

#### **Books and references:**

- 1. Process Equipment and Plant Design Principles and Practices", Ray. Subhabrata and Das, Gargi; ISBN: 9780128148853; 1st Edn., May 2020, Elsevier Inc.
- 2. Smith BD. Design of equilibrium stage processes. McGraw-Hill Companies; 1963.
- 3. Sinnott, R.K. and Towler, G., 2013. Chemical Engineering Design, Chemical Engineering Design.
- 4. Shah RK, Sekulic DP. Fundamentals of heat exchanger design. John Wiley & Sons; 2003 Aug 11.
- 5. Lestina, T. and Serth, R.W., 2007. Process heat transfer: Principles, applications and rules of thumb., Elsevier Ltd.

Pept. of Bio-Technology Challenya Sharathi Instituta of Techno Gandipet, Hyderabad-500 075.

S.No	Name of the student	Roll No
1	M Jahanavi	160118805009
2	D Niveditha	160118805018

#-# EE A. Ø Dept. of Bio-Technology Challenya SharaiM Instituta of Techno Gandipet, Hyderabad-500 075.

# Structural Biology

**No.of enrolled Participants-8** 

**Duration of the Course: 12 Weeks** 

**ACADEMIC YEAR: 2020-21** 

#-HEAD
Dept. of Bio-Technology
Challenga Sharath Institute of Techno
Gandipet, Hyderabad-500 075.

Name of the value added courses (with 30 or more contact hours) offered	Course code(if any)	Year of offering	No. of times offered during the same year	Duration of course in Hours	Number of students enrolled in the year	Number of Students completing the course in the year
Structural	CBIT/20BT V072	2021	1	12weeks/90	8	8
Biology				Hours		

Pept. of Bio-Technology Challenga Sharatili Institute of Techno Gandipet, Hyderabad-500 075.

### **Structural Biology**

Course Duration: 12 weeks

Credits : 3

**Week 1**: Introduction: Flow of the history of biological inventions, basic Biological Macromolecules of life, i.e., Protein, Nucleic Acid, Carbohydrates & Lipid/Fat, and a comparison between polymers and "3C"ecrets of covalent bond, nucleic acid, DNA sequencing, PCR innovation, gene sequencing to genome sequencing, introduction to NGS and its different platforms, arrival of Post Genomic Era, the effect of HGP, and experimental three-dimensional structure determination techniques.

**Week 2:** Protein: Amino acids and their properties, Protein Chemistry, Chirality, Peptide bond, and Levels of protein structures, Dihedral angles, Peptide bond, and Ramachandran Plot, Super Secondary Structures, Motif, Domains, Non-covalent interactions, Folding of Protein, Thermodynamics, and Kinetics of protein folding, Characterization of Proteins.

Week 3: Introduction to Structural Biology Techniques: cellular organization, resolution structure determining technique with their ranges of the resolution, the success of X-ray crystallography from single molecule to a crystal, X-ray Crystallography, Crystallization in X-ray Crystallography, Crystallography.

**Week 4**: X-ray Crystallography: Production of X-ray and its properties, unit cell, symmetry, and lattice, the geometry of the crystal system, Crystal Symmetry, Instrumentation in X-ray Crystallography, Data collection, and processing

Week 5: X-ray Crystallography: Data Analysis of X-ray Crystallography - Diffraction Patterns, Indexing, Bragg's Law, Laue equation, Relation between "Laue equation and Bragg's Law", Lattice Transformation, Ewald Sphere, Laue Condition for Diffraction and Ewald Sphere, Structure Factors and Diffraction Pattern, Atomic Scattering Factor, Anomalous Dispersion, Analytical expression of the phase, Fourier Transformation, introduction to Phase Problem. Phase problem - Phase Problem, Patterson Function, How to solve phase problem, Heavy atom replacement methods, Isomorphous replacement, Anomalous dispersion, phase problem associated with crystal diffraction and common techniques to recover phase resolving different phase improvement methods. Refinement and Structure deposition to PDB - aspects of structure refinement, motivation, application, the procedure of simulated annealing, PDB repository, atomic model deposition as well as different PDB validation suites.

**Week 6**: NMR: Introduction to NMR, basic Principles of NMR and Instrumentation, NMR Sample Preparation and Chemical Shift related concepts, Factors effecting NMR Spectra (1D & 2D), 2D & 3D NMR Spectroscopy focusing on protein structure.

Dept. of Bio-Technology Challenga Sharatid Institute of Techno Gandipet, Hyderabad-500 075. **Week 7:** Spectroscopy: Introduction to Spectroscopy, UV-Vis and CD spectroscopy, Fluorescence Spectroscopy and Green Fluorescence Protein (GFP), Infrared & Raman Spectroscopy for protein, Raman Spectroscopy, Raman Microscopy and Raman Crystallography for studying protein.

**Week 8**: Microscopy: Introduction to Microscopy, Functioning details of Cryo-Electron Microscopy (Cryo-EM), Cryo-Electron Microscopy: Data Collection and Analysis, A concise story of advancement Cryo-EM, Protein Data Bank.

**Week 9**: Molecular Visualizations: History of Molecular Visualizations of Biological Macromolecules, Description of structure-related files (.pdb, .mmcif, .mtz, etc.), Demonstration of COOT, 3D visualization using Pymol, Demonstration of Pymol.

Week 10: Molecular Dynamic Simulation: Why we need MD Simulation, Molecular Dynamic Simulation Process, Build a realistic atomistic model of the system, the algorithm behind simulation process, Concept of Topology and Parameter files, Major components in a force field, the concept of solvation, solvent models, Periodic Boundary Condition, Concept of Central Simulation Box, Phase Space, Concept of Ensembles, Energy Minimization (EM), potential energy surface (PES), Determination of EM, types of EM methods and their algorithms, Steps in MD Simulation, Application of Molecular Dynamic Simulation.

Week 11: Protein Engineering: What, How & Which of Protein Engineering, How to make logical Protein Engineering: Process of Rational design, a success story of Rational Protein designing: Focusing on De Novo Process, Designing Protein by mimicking nature: Process of Directed Evolution, Achievement, Challenges, and Future direction in the field of Protein Engineering.

**Week 12**: Structure-Based Drug Discovery: Introduction to Structure-Based Drug Discovery (SBDD), Rational Drug Discovery, Docking Based Virtual Screening: Progress, Challenges and Future perspective, what makes a small molecule an ideal drug: Developing in silico ADMETox Model, Structure-Based Drug Discovery: Case study and Conclusion

#### **Books and references:**

- 1. Carl Ivar Branden and John Tooze., "Introduction to Protein Structure" 2nd 2001 Edition, Taylor and Francis
- 2. Voet, D. and Voet, J. G., "Biochemistry" 3rd edition, John Wiley and Sons.
- 3. Introduction to Protein Architecture: The Structural Biology of Proteins, 2001 Arthur M. Lesk, Oxford University Press; 1st edition
- 4. LubertStryer, Biochemistry, 4th Edition, WH Freeman & Co
- 5. Creighton. T.E., Proteins, Structure and Molecular Properties, 2nd Edition, 1993 W.H. Freeman and Co
- 6. McPherson, A. "Introduction to Macromolecular Crystallography", 2nd 2009 edition, Wiley-Blackwell.
- 7. Drenth, J., "Principles of Protein X-Ray Crystallography", 3rd edition, 2007 Springer.
- 8. Rhodes, G., "Crystallography Made Crystal Clear", 3rd edition, Academic Pres

Dept. of Bio-Technology Challenya Sharafill Institute of Techno Gendipet, Hyderabad-500 075.

S.No	Name of the	Roll No
	student	
1	Nalli Deepika	160118805005
2	M Jahanavi	160118805009
3	A. Jahnavi	160118805010
4	D Niveditha	160118805018
5	K. Sai Manasa	160118805023
6	S Deepak Mohan	160118805034
	Reddy	
7	Mohith Arikatla	160118805037
8	Malishetty Vijay	160118805043
	Bhargav	

Dept. of Bio-Technology Challenga Bharatid Institute of Techno Gandipet, Hyderabad-500 075.

### **Functional Genomics**

**No.of enrolled Participants-1** 

**Duration of the Course: 4 Weeks** 

**ACADEMIC YEAR: 2020-21** 

Pept. of Bio-Technology Challenga Sharath Institute of Techno Gandipet, Hyderabad-500 075.

Name of the value added courses (with 30 or more contact hours) offered	Course code(if any)	Year of offering	No. of times offered during the same year	Duration of course in Hours	Number of students enrolled in the year	Number of Students completing the course in the year
Functional	CBIT/20BT V034	2021	1	4 weeks/90	1	1
Genomics				Hours		

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#### **Functional Genomics**

**Course Duration: 4 Weeks** 

Credits: 1

**Week 1:** [2.5 hrs; 4 lectures]

Introduction to Functional Genomics: Pre- and post-genomic era; major advancements in genomic approaches; epigenetics and etagenomics; forward versus reverse genetics

**Week 2**: [2.5 hrs; 4 lectures]

Genome Analyses - Part 1 Genome editing approaches and their applications; gene expression analyses and applications

Week 3: [3 hrs: 4 lectures and 2 tutorial sessions]

Genome Analyses - Part 2 Methods for DNA/RNA sequencing, sequence analysis and their applications

Week 4: [2.5 hrs: 3 lectures and 2 laboratory sessions]

Comparative Genomics Genomic insight into evolution; power of comparative genomic analysis

#### **Books and references**

Mostly publically available literature. Will be shared with the participants during the launch of the course.

i-f EE △ 0 Dept. of Bio-Technology Challenya SharalM Institute of Techno Gandipet, Hyderabad-500 075.

S.No	Name of the student	Roll No	
1	Mohith Arikatla	160118805037	

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Dept. of Bio-Technology

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Gandipet, Hyderabad-500 075.

# **Technologies for Clean and Renewable Energy Production**

**No.of enrolled Participants-1** 

**Duration of the Course: 8 Weeks** 

**ACADEMIC YEAR: 2020-21** 

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Gandipet, Hyderabad-500 075.

Name of the value added courses (with 30 or more contact hours) offered	Course code(if any)	Year of offering	No. of times offered during the same year	Duration of course in Hours	Number of students enrolled in the year	Number of Students completing the course in the year
Technologies for clean and Renewable energy production	CBIT/20BT V041	2021	1	8 weeks/90 Hours	1	1

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#### **Technologies for Clean and Renewable Energy Production**

**Course Duration: 8 Weeks** 

Credits : 2

- **Week 1**: Introduction, characterization of coal and conventional routes for energy production from coal.
- Week 2: Cleaner routes for energy production form coal.
- Week 3: Characterization of crude oil and conventional routes for crude oil utilization.
- Week 4: Cleaner routes for energy production form petroleum crude.
- Week 5: Cleaner energy production from gaseous fuels.
- Week 6: Solar and wind energy production.
- Week 7: Production of hydro and geothermal energy.
- Week 8: Energy production from biomass and wastes and energy conservation.

#### **Books and references:**

- 1. 1.Miller Bruce G., Coal Energy Systems, Elsevier Academic Press, Paris 2005
- 2. 2.. Twidel, J. and Tony W., Renewable Energy Resources, Second Edition, Taylor & Energy Resources, Second Edition, Second Ed
- 3. 3. Kreith F., Goswami D.Y., Energy Management and Conservation, CRC Press 2008
- 4. 4.Sukhatme S., J Nayak J., Solar Energy: Principles of thermal Collection and Storage, 3 rd Ed., Tata McGrow-Hill Publishing Company Ltd. 2008
- 5. 5. Mondal P and Dalai A., Sustainable utilization of natural resources, CRC Press 2017.

List of participants

Dept. of Bio-Technology Challenya Bharathi Institute of Techno Gandipet, Hyderabad-500 075.

S.No	Name of the student	Roll No
1	Nalli Deepika	160118805005

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Dept. of Bio-Technology
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Gandipet, Hyderabad-500 075.

## 1.3 Curriculum Enrichment 2020-21

## List of value added courses completed by B.E (IT) students during 2020-21

Name of the value added courses offered	Code
Web development	CBIT/20ITV001
Algorithmic toolbox	CBIT/20ITV002
Android app development	CBIT/20ITV003
Python Bootcamp	CBIT/20ITV004
Basics of Machine Learning	CBIT/20ITV005
C & C++	CBIT/20ITV006
Functions in Python	CBIT/20ITV007
Cyber security	CBIT/20ITV008
Responsive web design	CBIT/20ITV009
Programming for Everybody (Getting Started with Python)	CBIT/20ITV010
Crash course on python	CBIT/20ITV011
Introduction to software product management	CBIT/20ITV012
AI for every one	CBIT/20ITV013
Getting started in google analytics	CBIT/20ITV014
Using python access the web data	CBIT/20ITV015
Python for data structures	CBIT/20ITV016
Deep Learning using python	CBIT/20ITV017
Google IT support	CBIT/20ITV018
The fundamentals of digital marketing	CBIT/20ITV019
Introduction to Cybersecurity Tools & Cyber Attacks	CBIT/20ITV020
IT Fundamentals for Cybersecurity	CBIT/20ITV021
Artificial Intelligence	CBIT/20ITV022
Machine Learning	CBIT/20ITV023
The Joy of Computing using Python	CBIT/20ITV024
Programming in java	CBIT/20ITV025
Programming with python	CBIT/20ITV026
Full Stack with Django and React	CBIT/20ITV027
Introduction to machine learning	CBIT/20ITV028
The bits and bytes of computer networking	CBIT/20ITV029
Operating systems and you	CBIT/20ITV030
System adminstration and IT infratructue services	CBIT/20ITV031
IT Security	CBIT/20ITV032



Advanced Styling with Responsive Design	CBIT/20ITV033
Introduction to HTML5	CBIT/20ITV034
Interactivity with javascript	CBIT/20ITV035
Java and python	CBIT/20ITV036
Introduction to C# programming and unity	CBIT/20ITV037
Full Stack Development	CBIT/20ITV038
Using python to interact with operating system	CBIT/20ITV039
Introduction to game development	CBIT/20ITV040
Getting started with AWS and machine learning	CBIT/20ITV041
Introduction to CSS3	CBIT/20ITV042
Front-End development with react	CBIT/20ITV043
Essential Mathematics for Machine Learning	NA



#### **SUMMARY REPORT OF VALUE-ADDED COURSES - 2020 - 21**

**Course 1:** Web development

Code: CBIT/20ITV001

**Duration: 30 Hours** 

SN	Registered & completed student	Total no. of students
0	Name	registered & completed
1	S. Juhiya Afreen	01

# Syllabus:

Week 1: Introduction to the Internet

Week 2: Building your webapp Week 3 & Week 4: Databases

Week 5: Introduction to security for webapps

Week 6 & Week 7: Mobile Application Development

Week 8 : Concluding Lectures

**Course 2:** Algorithmic toolbox

Code: CBIT/20ITV002

**Duration: 30 Hours** 

SN O	Registered & completed student Name	Total no. of students registered & completed
1	Gagan Kumar Kaira	01

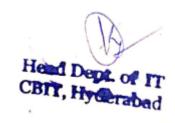
### Syllabus:

Week 1: Programming Challenges

Week 2: Algorithmic Warm-up

Week 3: Greedy Algorithms

Week 4: Divide-and-Conquer



**Course 3:** Android App Development **Code:** CBIT/20ITV003

**Duration: 30 Hours** 

SN	Registered & completed student	Total no. of students
0	Name	registered & completed
1	Sinde Abhimanyu	01

# Syllabus:

	Android Software Development, building a sample Android application using Android Studio.
	Android Project Structure, Android Manifest File and its common settings.
Week-3	Activities, Services, Intents.
Week-4	Permissions, Application resources.
	Basic User Interface Screen elements, Designing User Interfaces with Layouts.
Week-6	Using Content Providers, Handling Persisting Data.
Week-7	JSON Web Service.
	Gallery, drawing 2D and 3D Graphics and Multimedia, Drawing and Working with Animation.
	Networking, Telephony and Location, Android Networking, Web and Telephony API.
	Search, Location and Mapping, Communication, Identity, Sync and social media.
Week-11	Sensor and Hardware Programming.
Week-12	Publishing Android Application.



#### Textbooks & References

- 1. PGDMAD-103: Android Mobile Application Development, ISBN-978-81-940577-2-7 June 2019 by Dr. Babasaheb Ambedkar Open University.
- 2. PGDMAD-105: Software Lab for Android Mobile Application Development, ISBN-978-81-940577-4-7 June 2019 by Dr. Babasaheb Ambedkar Open University.
- 3. PGDMAD-201: Advanced Android Mobile Application, ISBN-978-81-940577-5-8 by Dr. Babasaheb Ambedkar Open University.
- 4. PGDMAD-203: Software Lab for Advanced Android Mobile Application, ISBN-978-81-940577-7-2 by Dr. Babasaheb Ambedkar Open University.
- 5. Wireless Communications & Networks, Second Edition, William Stallings by Pearson.
- 6. Mobile Computing Technology, Applications and service creation, Asoke K Telukder, Roopa R Yavagal by TMH.
- 7. Android Application Development Black Book, Pradeep Kothari, dreamtech press.
- 8. Wireless and mobile networks, Dr. Sunilkumar S. Manvi, Dr. Mahabaleshwar S.Kakkasageri by WILEY.
- 9. Wireless networks, P. Nicopolitidis, M. S. Obaidat, G.I. Papadimitriou, A.S. Pomportsis by WILEY.
- 10. Mobile Computing, Raj Kamal by Oxford.
- 11. Mobile Computing Theory and Practice-Kumkum Garg- Pearson.

**Course 4:** Python Bootcamp

Code: CBIT/20ITV004

**Duration: 30 Hours** 

SN O	Registered & completed student Name	Total no. of students registered & completed
1	Balerao Supraja	01

### Syllabus:

#### Week 1:

- •BASICS OF PYTHON SPYDER (TOOL)
- Introduction Spyder
- Setting working Directory
- Creating and saving a script file
- File execution, clearing console, removing variables from environment,



- Commenting script files
- Variable creation
- Arithmetic and logical operators
- Data types and associated operations

#### Week 2:

Sequence data types and associated operations

- Strings
- Lists
- Arrays
- Tuples
- Dictionary
- Sets
- Range

### NumPy

ndArray

#### Week 3:

- •Pandas dataframe and dataframe related operations on Toyota Corolla dataset
  - 1. Reading files
  - 2. Exploratory data analysis
  - 3. Data preparation and preprocessing
- •Data visualization on Toyoto Corolla dataset using matplotlib and seaborn libraries
  - 1. Scatter plot
  - 2. Line plot
  - 3. Bar plot
  - 4. Histogram
  - 5. Box plot
  - 6. Pair plot
- •Control structures using Toyota Corolla dataset
  - 1. if-else family
  - 2. for loop
  - 3. for loop with if break
  - 4. while loop
- Functions

Week 4: CASE STUDY

- Regression
  - 1. Predicting price of pre-owned cars
- Classification
  - 1. Classifying personal income



#### Textbooks & References

1. Introduction to linear algebra - by Gilbert Strang

2. Applied statistics and probability for engineers – by Douglas Montgomery 3. Mastering python for data science, Samir Madhavan

**Course 5:** Basics of Machine Learning

Code: CBIT/20ITV005

**Duration: 30 Hours** 

SN O	Registered & completed student Name	Total no. of students registered & completed
1	Shiva Kumar Chakali	01
2		01

### Syllabus:

Week 1: Introduction to Machine Learning

Week 2: Regression with multiple input variables

Week 3: Classification

**Course 6:** C & C++ **Code:** CBIT/20ITV006

**Duration: 30 Hours** 

SN O	Registered & completed student Name	Total no. of students registered & completed
1	Bolli Srujana	00
2	Manchikanti Pravalika	02

### Syllabus:

WEEK 1: Programming in C++ is Fun: Build and execute a C program in C++, Write equivalent programs in C++

WEEK 2: C++ as Better C : Procedural Extensions of C

WEEK 3: Overview of OOP in C++ : Classes and basic Object-Oriented features (encapsulation)

WEEK 4: Overview of OOP in C++ : More OO features, overloading, namespace and using struct and union

WEEK 5: Inheritance: Generalization / Specialization of Object Modeling in C++

WEEK 6: Polymorphism : Static and Dynamic Binding

WEEK 7: Type Casting & Exceptions : C++ cast operators; C++ Exceptions & standard exception classes

WEEK 8: Templates & STL – Function and Class templates and using STL like containers, algorithms

#### Textbooks & References

- 1. The C++ Programming Language by Bjarne Stroustrup, 2013. Or, Programming: Principles and Practice Using C++ by Bjarne Stroustrup, 2014 These books will be followed in the course
- 2. The C Programming Language (Ansi C Version) by Brian W. Kernighan and Dennis M. Ritchie, 1990. Or, The C Programming Language by Brian W. Kernighan and Dennis M. Ritchie, 2015
- 3. C++ reference (C++98 and C++03). http://en.cppreference.com/w/
- 4. Presentations used in the Course

**Course 7:** Functions in Python

Code: CBIT/20ITV007

**Duration: 30 Hours** 

SN	Registered & completed student	Total no. of students
0	Name	registered & completed
1	R Srija	01

# Syllabus:

#### Week 1:

### •BASICS OF PYTHON SPYDER (TOOL)

- Introduction Spyder
- Setting working Directory
- Creating and saving a script file
- File execution, clearing console, removing variables from environment, clearing environment
- Commenting script files
- Variable creation
- Arithmetic and logical operators
- Data types and associated operations

#### Week 2:

Sequence data types and associated operations

- Strings
- Lists
- Arrays
- Tuples
- Dictionary
- Sets



### NumPy

ndArray

#### Week 3:

- •Pandas dataframe and dataframe related operations on Toyota Corolla dataset
  - 1. Reading files
  - 2. Exploratory data analysis
  - 3. Data preparation and preprocessing
- •Data visualization on Toyoto Corolla dataset using matplotlib and seaborn libraries
  - 1. Scatter plot
  - 2. Line plot
  - 3. Bar plot
  - 4. Histogram
  - 5. Box plot
  - 6. Pair plot
- •Control structures using Toyota Corolla dataset
  - 1. if-else family
  - 2. for loop
  - 3. for loop with if break
  - 4. while loop
- •Functions

### Week 4: CASE STUDY

•Regression

Predicting price of pre-owned cars

- •Classification
  - 1. Classifying personal income

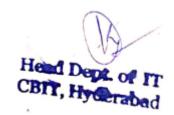
#### **Textbooks & References**

- 1. Introduction to linear algebra by Gilbert Strang
- 2. Applied statistics and probability for engineers by Douglas Montgomery
- 3. Mastering python for data science, Samir Madhavan

Course 8: Cyber security

Code: CBIT/20ITV008

SN O	Registered & completed student Name	Total no. of students registered & completed
1	Krishna Gupta Yanduri	01



### Syllabus:

Week 1: Introduction to cryptography, Classical Cryptosystem, Block Cipher.

Week 2: Data Encryption Standard (DES), Triple DES, Modes of Operation, Stream Cipher.

Week 3: LFSR based Stream Cipher, Mathematical background, Abstract algebra, Number Theory.

Week 4: Modular Inverse, Extended Euclid Algorithm, Fermat's Little Theorem, Euler Phi-Function, Euler's theorem.

Week 5: Advanced Encryption Standard (AES), Introduction to Public Key Cryptosystem, Diffie-Hellman Key Exchange, Knapsack Cryptosystem, RSA Cryptosystem.

Week 6: Primarily Testing, ElGamal Cryptosystem, Elliptic Curve over the Reals, Elliptic curve Modulo a Prime.

Week 7: Generalized ElGamal Public Key Cryptosystem, Rabin Cryptosystem.

Week 8 : Message Authentication, Digital Signature, Key Management, Key Exchange, Hash Function.

Week 9: Cryptographic Hash Function, Secure Hash Algorithm (SHA), Digital Signature Standard (DSS).

Week 10: Cryptanalysis, Time-Memory Trade-off Attack, Differential and Linear Cryptanalysis.

Week 11: Cryptanalysis on Stream Cipher, Modern Stream Ciphers, Shamir's secret sharing and BE, Identity-based Encryption (IBE), Attribute-based Encryption (ABE).

Week 12: Side-channel attack, The Secure Sockets Layer (SSL), Pretty Good Privacy (PGP), Introduction to Quantum Cryptography, Blockchain, Bitcoin and Cryptocurrency.

**Course 9:** Responsive web design

Code: CBIT/20ITV009

**Duration: 30 Hours** 

SN	Registered & completed student	Total no. of students
0	Name	registered & completed
1	Thota Ivan	01

### Syllabus:

Week 1: Web design principles

Week 2: Realising design principles in code

Week 3: Adding content to websites

Week 4: Building a full gallery app



**Course 10:** Programming for Everybody (Getting Started with Python)

Code: CBIT/20ITV010

**Duration: 30 Hours** 

SN	Registered & completed student	Total no. of students
0	Name	registered & completed
1	Jhansi Sreya Jagarapu	
2	Gayathri Vavilala	
3	Supraja Balerao	
4	Aditi Indoori	
5	Ameya s Pedgaonkar	10
6	Usha Goud Gourigari	10
7	Sathwika Shakkara	
8	Poornima Siddineni	
9	Swetha Singireddy	
10	Ishika Gupta	

### **Syllabus:**

Week 1: Chapter One - Why we Program?

Week 2: Installing and Using Python

Week 3: Chapter One: Why We Program (continued)

Week 4: Chapter Two: Variables and Expressions

Course 11: Crash course on python

Code: CBIT/20ITV011

**Duration: 30 Hours** 

SN	Registered & completed student	Total no. of students
0	Name	registered & completed
1	Keerthi Aluvala	00
2	Vivek reddy pokala	02

# Syllabus:

Week 1: Hello Python

Week 2: Basic Python Syntax

Week 3: Loops

Week 4: Strings, Lists and Dictionaries



**Course 12:** Introduction to software product management

Code: CBIT/20ITV012

**Duration: 30 Hours** 

SN	Registered & completed student	Total no. of students
Ο	Name	registered & completed
1	Vaishnavi Vemuri	01

# Syllabus:

Week 1: Module 1: Software Product Management - The Discipline

Week 2: Module 2: Foundations of Software Product Management

**Course 13:** AI for every one

Code: CBIT/20ITV013

**Duration: 30 Hours** 

SN	Registered & completed student	Total no. of students
0	Name	registered & completed
1	Ishika Gupta	01
2		01

# Syllabus:

Week 1: What is AI?

Week 2: Building AI Projects

Week 3: Building AI In Your Company

Week 4: AI and Society

Course 14: Getting started in google analytics

Code: CBIT/20ITV014

SN	Registered & completed student	Total no. of students
0	Name	registered & completed
1	MANOJ KUMAR PAL IVIR	01



## Syllabus:

- 1. Create a Google Analytics account and connect your website.
- 2. Add a View to eliminate internal traffic.
- 3. Understand 'The Funnel' and how it is used in Google Analytics.
- 4. Explore the various user-defined parameters in the Audience Overview report.
- 5. Interpret the data from various Audience reports to make effective decisions.
- 6. Interpret the data from Acquisition and Behavior reports to make effective decisions.

# Course 15: Using python access the web data

Code: CBIT/20ITV015

**Duration: 30 Hours** 

SN O	Registered & completed student Name	Total no. of students registered & completed
1	Ishika Gupta	00
2	Swetha Valakonda	02

### Syllabus:

Week 1: Getting Started

Week 2: Regular Expressions

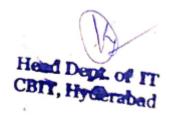
Week 3: Networks and Sockets

Week 4: Programs that Surf the Web

### Course 16: Python for data structures

Code: CBIT/20ITV016

SN	Registered & completed student	Total no. of students
0	Name	registered & completed
1	Aditi Indoori	
2	Swetha Valakonda	02



### Syllabus:

#### Week 1

Informal introduction to programmin, algorithms and data structures viaged Downloading and installing Python gcd in Python: variables, operations, control flow - assignments, condition-als, loops, functions

#### Week 2

Python: types, expressions, strings, lists, tuples

Python memory model: names, mutable and immutable values

List operations: slices etc

Binary search

Inductive function denitions: numerical and structural induction Elementary inductive sorting: selection and insertion sort

In-place sorting

#### Week 3

Basic algorithmic analysis: input size, asymptotic complexity, O() notation Arrays vs lists

Merge sort

Quicksort

Stable sorting

#### Week 4

Dictionaries

More on Python functions: optional arguments, default values

Passing functions as arguments

Higher order functions on lists: map, lter, list comprehension

### Week 5

Exception handling Basic input/output Handling files String processing

#### Week 6

Backtracking: N Queens, recording all solutions Scope in Python: local, global, nonlocal names

Nested functions

Data structures: stack, queue

Heaps



#### Week 7

Abstract datatypes

Classes and objects in Python

"Linked" lists: find, insert, delete

Binary search trees: find, insert, delete Height-balanced binary search trees

#### Week 8

Effcient evaluation of recursive denitions: memoization

Dynamic programming: examples

Other programming languages: C and manual memory management

Other programming paradigms: functional programming

### Course 17: Deep Learning using python

Code: CBIT/20ITV017

**Duration: 30 Hours** 

SN O	Registered & completed student Name	Total no. of students registered & completed
1	S.Juhiya Afreen	01

### Syllabus:

Week 1: Introduction to Deep Learning, Bayesian Learning, Decision Surfaces

Week 2: Linear Classifiers, Linear Machines with Hinge Loss

Week 3: Optimization Techniques, Gradient Descent, Batch Optimization

Week 4: Introduction to Neural Network, Multilayer Perceptron, Back Propagation Learning

Week 5: Unsupervised Learning with Deep Network, Autoencoders

Week 6: Convolutional Neural Network, Building blocks of CNN, Transfer Learning

Week 7: Revisiting Gradient Descent, Momentum Optimizer, RMSProp, Adam

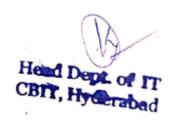
**Week 8:** Effective training in Deep Net- early stopping, Dropout, Batch Normalization, Instance Normalization, Group Normalization

**Week 9:** Recent Trends in Deep Learning Architectures, Residual Network, Skip Connection Network, Fully Connected CNN etc.

**Week 10**: Classical Supervised Tasks with Deep Learning, Image Denoising, Semanticd Segmentation, Object Detection etc.

Week 11: LSTM Networks

**Week 12:** Generative Modeling with DL, Variational Autoencoder, Generative Adversarial Network Revisiting Gradient Descent, Momentum Optimizer, RMSProp, Adam



### Textbooks & References Using python access the web data

1.Deep Learning- Ian Goodfelllow, Yoshua Benjio, Aaron Courville, The MIT Press 2.Pattern Classification- Richard O. Duda, Peter E. Hart, David G. Stork, John Wiley & Sons Inc.

Course 18: Google IT support

Code: CBIT/20ITV018

**Duration: 30 Hours** 

SN O	Registered & completed student Name	Total no. of students registered & completed
1	Bangari Meghana	01

### Syllabus:

Course 1: Technical Support Fundamentals

- Offered by Google. This course is the first of a series that aims to prepare you for a role as an entry-level IT Support Specialist. In this ... Enroll for free.

Course 2: The Bits and Bytes of Computer Networking

- Offered by Google. This course is designed to provide a full overview of computer networking. We'll cover everything from the fundamentals ... Enroll for free.

Course 3: Operating Systems and You: Becoming a Power User

- Offered by Google. In this course -- through a combination of video lectures, demonstrations, and hands-on practice -- you'll learn about ... Enroll for free.

Course 4: System Administration and IT Infrastructure Services

- Offered by Google. This course will transition you from working on a single computer to an entire fleet. Systems administration is the field ... Enroll for free.

Course 5: IT Security: Defense against the digital dark arts

- Offered by Google. This course covers a wide variety of IT security concepts, tools, and best practices. It introduces threats and attacks ... Enroll for free.

Course 20: Introduction to Cybersecurity Tools & Cyber Attacks

Code: CBIT/20ITV020



SN O	Registered & completed student Name	Total no. of students registered & completed
1	Ranveer Reddy Deshmukh Pingili	01

# Syllabus:

Week 1: History of Cybersecurity

Week 2: A brief overview of types of actors and their motives

Week 3: An overview of key security concepts

Week 4: An overview of key security concepts

Course 21: IT Fundamentals for Cybersecurity

Code: CBIT/20ITV021

**Duration: 30 Hours** 

SN O	Registered & completed student Name	Total no. of students registered & completed
1	MOHAMMED TOUHEED PATEL	01

# Syllabus:

Week 1: Compliance Frameworks and Industry Standards

Week 2: Client System Administration, Endpoint Protection and Patching

Week 3: Server and User Administration

Week 4: Cryptography and Compliance Pitfalls

Course 22: Artificial Intelligence

Code: CBIT/20ITV022

SN	Registered & completed student	Total no. of students
0	Name	registered & completed
1	Bangari Meghana	01



### Syllabus:

**Week 1**: Introduction: Philosophy of AI, Definitions

Week 2 : Modeling a Problem as Search Problem, Uninformed Search

Week 3: Heuristic Search, Domain Relaxations

Week 4 :Local Search, Genetic Algorithms

Week 5 : Adversarial Search

Week 6 : Constraint Satisfaction

Week 7 : Propositional Logic & Satisfiability

Week 8: Uncertainty in AI, Bayesian Networks

Week 9 : Bayesian Networks Learning & Inference, Decision Theory

Week 10:Markov Decision Processes

Week 11:Reinforcement Learning

Week 12:Introduction to Deep Learning & Deep RL

#### **Textbooks & References**

Stuart Russell & Peter Norvig, Artificial Intelligence: A Modern Approach, Prentice-Hall, Third Edition (2009) (required).

Ian GoodFellow, Yoshua Bengio & Aaron Courville, Deep Learning, MIT Press (2016).

Course 23: Machine Learning

Code: CBIT/20ITV023

**Duration: 30 Hours** 

SN O	Registered & completed student Name	Total no. of students registered & completed
1	Ishika Gupta	01

### Syllabus:

**Week 0**: Probability Theory, Linear Algebra, Convex Optimization - (Recap)

Week 1: Introduction: Statistical Decision Theory - Regression, Classification, Bias Variance

**Week 2**: Linear Regression, Multivariate Regression, Subset Selection, Shrinkage Methods, Principal Component Regression, Partial Least squares

Week 3: Linear Classification, Logistic Regression, Linear Discriminant Analysis

Week 4: Perceptron, Support Vector Machines

**Week 5:** Neural Networks - Introduction, Early Models, Perceptron Learning, Backpropagation, Initialization, Training & Validation, Parameter Estimation - MLE, MAP, Bayesian Estimation

**Week 6:** Decision Trees, Regression Trees, Stopping Criterion & Pruning loss functions, Categorical Attributes, Multiway Splits, Missing Values, Decision Trees - Instability Evaluation Measures

**Week 7:** Bootstrapping & Cross Validation, Class Evaluation Measures, ROC curve, MDL, Ensemble Methods - Bagging, Committee Machines and Stacking, Boosting

Week 8: Gradient Boosting, Random Forests, Multi-class Classification, Naive Bayes, Bayesian Networks



Week 9: Undirected Graphical Models, HMM, Variable Elimination, Belief Propagation

Week 10: Partitional Clustering, Hierarchical Clustering, Birch Algorithm, CURE Algorithm, Density-based Clustering

Week 11: Gaussian Mixture Models, Expectation Maximization

**Week 12**: Learning Theory, Introduction to Reinforcement Learning, Optional videos (RL framework, TD learning, Solution Methods, Applications)

### Textbooks & References Using python access the web data

- 1. The Elements of Statistical Learning, by Trevor Hastie, Robert Tibshirani, Jerome H. Friedman (freely available online)
- 2. Pattern Recognition and Machine Learning, by Christopher Bishop (optional)

# Course 24: The Joy of Computing using Python

Code: CBIT/20ITV024

**Duration: 30 Hours** 

SN O	Registered & completed student Name	Total no. of students registered & completed
1	Bangari Meghana	01

### Syllabus:

- Motivation for Computing
- Welcome to Programming!!
- Variables and Expressions : Design your own calculator
- Loops and Conditionals: Hopscotch once again
- Lists, Tuples and Conditionals : Lets go on a trip
- Abstraction Everywhere : Apps in your phone
- Counting Candies: Crowd to the rescue
- Birthday Paradox : Find your twin
- Google Translate : Speak in any Language
- Currency Converter : Count your foreign trip expenses
- Monte Hall: 3 doors and a twist
- Sorting : Arrange the books
- Searching: Find in seconds
- Substitution Cipher: What's the secret!!
- Sentiment Analysis : Analyse your Facebook data
- 20 questions game: I can read your mind
- Permutations : Jumbled Words



• Spot the similarities : Dobble game

• Count the words: Hundreds, Thousands or Millions.

• Rock, Paper and Scissor: Cheating not allowed!!

• Lie detector: No lies, only TRUTH

• Calculation of the Area: Don't measure.

• Six degrees of separation : Meet your favourites

• Image Processing : Fun with images

• Tic tac toe: Let's play

• Snakes and Ladders: Down the memory lane.

• Recursion : Tower of Hanoi

• Page Rank: How Google Works!!

Course 25: Programming in java

Code: CBIT/20ITV025

**Duration: 30 Hours** 

SN O	Registered & completed student Name	Total no. of students registered & completed
1	Ishika Gupta	01

### Syllabus:

Week 1: Overview of Object-Oriented Programming and Java

Week 2: Java Programming Elements Week 3: Input-Output Handling in Java

Week 4 : Encapsulation Week 5 : Inheritance

Week 6: Exception Handling

Week 7: Multithreaded Programming Week 8: Java Applets and Servlets

Week 9: Java Swing and Abstract Windowing Toolkit (AWT)

Week 10: Networking with Java

Week 11: Java Object Database Connectivity (ODBC)

Week 12: Interface and Packages for Software Development

**Textbooks & References** 

1.Java: The Complete Reference Hebert Schildt, Mc Graw Hill

2. Object-Oriented Programming with C++ and Java Debasis Samanta, Prentice Hall India.



Course 26: Programming with python

Code: CBIT/20ITV026

**Duration: 30 Hours** 

SN O	Registered & completed student Name	Total no. of students registered & completed
1	Misbah Uddin	01

### Syllabus:

#### Week 1:

# •BASICS OF PYTHON SPYDER (TOOL)

- Introduction Spyder
- Setting working Directory
- Creating and saving a script file
- File execution, clearing console, removing variables from environment, clearing environment
- Commenting script files
- Variable creation
- Arithmetic and logical operators
- Data types and associated operations

#### Week 2:

# Sequence data types and associated operations

- Strings
- Lists
- Arrays
- Tuples
- Dictionary
- Sets
- Range

### NumPy

ndArray

#### Week 3:

- •Pandas dataframe and dataframe related operations on Toyota Corolla dataset
  - 1. Reading files
  - 2. Exploratory data analysis
  - 3. Data preparation and preprocessing



### •Data visualization on Toyoto Corolla dataset using matplotlib and seaborn libraries

- 1. Scatter plot
- 2. Line plot
- 3. Bar plot
- 4. Histogram
- 5. Box plot
- 6. Pair plot

# •Control structures using Toyota Corolla dataset

- 1. if-else family
- 2. for loop
- 3. for loop with if break
- 4. while loop
- Functions

### Week 4: CASE STUDY

- Regression
  - 1. Predicting price of pre-owned cars
- Classification
  - 1. Classifying personal income

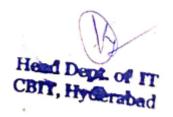
# Textbooks & References Using python access the web data

- 1. Introduction to linear algebra by Gilbert Strang
- 2. Applied statistics and probability for engineers by Douglas Montgomery
- 3. Mastering python for data science, Samir Madhavan

Course 27: Full Stack with Django and React

Code: CBIT/20ITV027

SN O	Registered & completed student Name	Total no. of students registered & completed
1	Dharani Kumar Reddy Gowra	01



Course 28: Introduction to machine learning

Code: CBIT/20ITV028

**Duration: 30 Hours** 

SN O	Registered & completed student Name	Total no. of students registered & completed
1	Poornima Siddineni	01

# Syllabus:

Week 0: Probability Theory, Linear Algebra, Convex Optimization - (Recap)Week 1: Introduction: Statistical Decision Theory - Regression,

Classification, Bias Variance

**Week 2**: Linear Regression, Multivariate Regression, Subset Selection, Shrinkage Methods, Principal Component

Regression, Partial Least squares

**Week 3**: Linear Classification, Logistic Regression, Linear Discriminant Analysis

**Week 4:** Perceptron, Support Vector Machines

**Week 5:** Neural Networks - Introduction, Early Models, Perceptron Learning, Backpropagation, Initialization,

Training & Validation, Parameter Estimation - MLE, MAP, Bayesian Estimation

**Week 6:** Decision Trees, Regression Trees, Stopping Criterion & Pruning loss functions, Categorical Attributes, Multiway Splits, Missing Values, Decision Trees - Instability Evaluation Measures

**Week 7:** Bootstrapping & Cross Validation, Class Evaluation Measures, ROC curve, MDL, Ensemble Methods - Bagging, Committee Machines and Stacking, Boosting

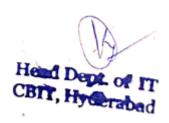
**Week 8**: Gradient Boosting, Random Forests, Multi-class Classification, Naive Bayes, Bayesian Networks

**Week 9**: Undirected Graphical Models, HMM, Variable Elimination, Belief Propagation

**Week 10**: Partitional Clustering, Hierarchical Clustering, Birch Algorithm, CURE Algorithm, Density-based Clustering

**Week 11**: Gaussian Mixture Models, Expectation Maximization

**Week 12**: Learning Theory, Introduction to Reinforcement Learning, Optional videos (RL framework, TD learning, Solution Methods, Applications)



#### Textbooks & References

1. The Elements of Statistical Learning, by Trevor Hastie, Robert Tibshirani, Jerome H. Friedman (freely available online)

2. Pattern Recognition and Machine Learning, by Christopher Bishop (optional)

### Course 29: The bits and bytes of computer networking

Code: CBIT/20ITV029

**Duration: 30 Hours** 

SN O	Registered & completed student Name	Total no. of students registered & completed
1	MOHAMMED FAWWAZUDDIN	01

### Syllabus:

Week 1: Introduction to Networking

Week 2: The Network Layer

Week 3: The Transport and Application Layers

Week 4: Networking Services

Course 29: Operating systems and you

Code: CBIT/20ITV029

**Duration: 30 Hours** 

SN O	Registered & completed student Name	Total no. of students registered & completed
1	MOHAMMED FAWWAZUDDIN	01

### Syllabus:

Week 1: Introduction

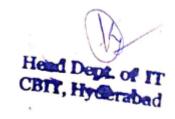
Week 2: Processes and Threads – Part IWeek 3: Processes and Threads – Part IIWeek 4: Interprocess Communication

**Week 5:** Concurrency and Synchronization – Part I **Week 6:** Concurrency and Synchronization – Part II

Week 7: Deadlock

Week 8: CPU Scheduling

**Week 9**: Memory Management



**Week 10**: Virtual Memory – Part I **Week 11:** Virtual Memory – Part II

Week 12: File System Processes and Threads - Part I

Course 30: System administration and IT infrastructure services

Code: CBIT/20ITV030

**Duration: 30 Hours** 

SN O	Registered & completed student Name	Total no. of students registered & completed
1	MOHAMMED FAWWAZUDDIN	01

### Syllabus:

Week 1: What is System Administration?

Week 2: Network and Infrastructure Services

Week 3: Software and Platform Services

Week 4: Directory Services

**Course 31: IT Security** 

Code: CBIT/20ITV031

**Duration: 30 Hours** 

SNO	Registered & completed student Name	Total no. of students registered & completed
1	MOHAMMED FAWWAZUDDIN	01

Course 32: Advanced Styling with Responsive Design

Code: CBIT/20ITV032

SN O	Registered & completed student Name	Total no. of students registered & completed
1	Ishika Gupta	01

Week One: Style with Responsive Design

Week Two: Basic Concepts

Week Three: Use Existing Frameworks

Week Four: Experiment!

Course 33: Introduction to HTML5

Code: CBIT/20ITV033

**Duration: 30 Hours** 

SN O	Registered & completed student Name	Total no. of students registered & completed
1	Ishika Gupta	- 02
2	Rajendar Meti	02

#### Week One

This week we will uncover the "mystery" behind the Internet. What happens when you type a URL into your browser so that a webpage magically appears? What is HTML5 and what happened to HTML 1 - 4? We will also cover some practical concepts that you need to master before you begin coding your own pages.

#### Week Two

This week you will need to take a deep breath and jump into coding. I will cover a large number of HTML tags, but it is important that you do more than just listen to these video and read the text book material. You need to practice (and fail!) in order to learn. Believe it or not, once you master the basic idea of using tags and attributes you will know everything you need to use any HTML5 tag. The page may not look the way you want it to look yet, but you will be able to use text, links, images, tables, and even music and videos! If you want to refer to a textbook this week for reinforcement of concepts, we will be using the Shay Howe online textbook as a reference. I will include links after the lectures, but some students prefer to read before the videos. (My preferred approach is to read/watch/read again.)

#### Week Three

Okay, you created a file...what now? This week we will begin by covering the important but often overlooked concepts of validation and accessibility. Did you follow the DOM structure when you created your page? Did you use semantic tags to make sure that page viewers can access all of the information, even if they have physical or cognitive disabilities? This is knowledge you can use if you would like to pursue a career as a web accessibility specialist. Finally I will briefly cover the steps needed to post your site to the web. There are many free and paid services that you can use to get your work off your computer and on to the Internet.



Course 34: Interactivity with javascript

Code: CBIT/20ITV034

**Duration: 30 Hours** 

SN O	Registered & completed student Name	Total no. of students registered & completed
1	Ishika Gupta	01

Week One: Introduction to JavaScript Week Two: Reacting to Your Audience Week Three: Arrays and Looping Week Four: Validating Form Data

Course 35: Java and python

Code: CBIT/20ITV035

**Duration: 30 Hours** 

SN	Registered & completed student	Total no. of students
0	Name	registered & completed
1	Shreya Oruganti	01

Module 1: Introduction to Java, Classes, & Eclipse

Module 2: Unit Testing, Arrays, & ArrayLists

Module 3: Static Variables, Methods, & Polymorphism Using Overloading

Course 36: Introduction to C# programming and unity

Code: CBIT/20ITV036

SN O	Registered & completed student Name	Total no. of students registered & completed
1	MUSTAFA AHMED MOHAMMED	01



Week 1: Starting to Program

Week 2: Data Types, Variables, and Constants

Week 3: Classes and Objects

Week 4: Unity 2D Basics

**Course 37: Full Stack Development** 

Code: CBIT/20ITV037

**Duration: 30 Hours** 

SN O	Registered & completed student Name	Total no. of students registered & completed
1	Dharani Kumar Reddy Gowra	01

Week 1: Introduction to the full stack

Week 2: Front-end technologies

Week 3: The full stack using Django

Week 4: Production environments

Course 38: Using python to interact with operating system

Code: CBIT/20ITV038

**Duration: 30 Hours** 

SN O	Registered & completed student Name	Total no. of students registered & completed
1	Keerthi Aluvala	01

Week 1: Getting Your Python On

Week 2: Managing Files with Python

Week 3: Regular Expressions

Week 4: Managing Data and Processes



Course 39: Introduction to game development

Code: CBIT/20ITV039

**Duration: 30 Hours** 

SN O	Registered & completed student Name	Total no. of students registered & completed
1	MUSTAFA AHMED MOHAMMED	01

Week 1 From Game Player to Game Developer

Week 2: Understanding Core Unity Concepts

Week 3: Building Your First Game

Week 4: Coding Gameplay Systems and Finishing Up

Course 40: Getting started with AWS and machine learning

Code: CBIT/20ITV040

**Duration: 30 Hours** 

SN	Registered & completed student	Total no. of students
0	Name	registered & completed
1	MANOJ KUMAR PALIVIRI	01

Week 1 Introduction to Machine Learning

Week 2: Machine Learning Pipeline

Week 3: Amazon AI Services: Computer Vision

Week 4: Amazon AI Services: NLP

**Course 41: Introduction to CSS3** 

Code: CBIT/20ITV041

SN O	Registered & completed student Name	Total no. of students registered & completed
1	Rajendar Meti	01



### Week One: Getting Started with Simple Styling

Welcome to Introduction to CSS3! In this course you will learn how to style your pages by taking advantage of the power of CSS3. We will focus on both proper syntax (how to write your styling rules) and the importance of accessibility design (making sure that your style enhances your site, not make it harder to navigate). It is so important that you jump in ready to make mistakes and typos in this course. The only way you will really understand the material is to practice typing it in on your own as often as possible.

### Week Two: Advanced Styling

Colors and fonts are just the start to styling your page. The nice thing about starting with these properties is that they are usually very straightforward to implement. You pick a color and boom - instant, expected results. This week we move on to new properties that tend to require a little bit of tweaking to get the desired results. In particular we will talk about the Box Model, background images, opacity, float, columns, visibility, and designing for different browsers.

#### Week Three: Psuedo-classes, Pseudo-elements, Transitions, and Positioning

Have you ever noticed on a web page that some links are blue and others are purple, depending upon if you have clicked on the links? How is it possible to style some anchor tags and not others? This week you will learn how to style pseudo-classes (e.g. a link that has been visiting, an element that has the mouse hovering over it) and pseudo-elements (e.g. the first-letter of a heading, the first line of a paragraph). These elements are not difficult to style, but do require careful coding. It is also the first step to adding simple animation to your site. We end this week with the subject of positioning -- how to get elements to stick to a certain part of your page. Think about annoying pop-up ads. How do the programmers get them to stay RIGHT IN THE MIDDLE OF THE SCREEN despite the fact that you keep trying to scroll them away.

### Week Four: Putting It All Together

This week I am going to do some code review. I will show you how I used pseudo-classes and pseudo-elements to style a table. Then I give you a demonstration of three different navigation bars that utilize different styling options. We will want to step back and talk about how these different options may affect the accessibility of our site. The final step to completing this course is the completion of the peer-graded project. You will have the chance to demonstrate the ability to follow styling guidelines while still putting your own personal touch on the project. Just remember, you need to validate your work for proper syntax and accessibility.



Course 42: Front-End development with react

Code: CBIT/20ITV042

**Duration: 30 Hours** 

SN O	Registered & completed student Name	Total no. of students registered & completed
1	Meghana Vishwanathula	01

Week 1 Introduction to React

Week 2: React Router and Single Page Applications

Week 3: React Forms, Flow Architecture and Introduction to Redux

Week 4: More Redux and Client-Server Communication

Course 43: Crash course on python

Code: CBIT/20ITV043

**Duration: 30 Hours** 

SN	Registered & completed student	Total no. of students
0	Name	registered & completed
1	Keerthi Aluvala	
2	sree keerthi meghana Bhurugubanda	03
3	vivek reddy pokala	

Week 1 Hello Python!

Week 2: Basic Python Syntax

Week 3: Loops

Week 4: Strings, Lists and Dictionaries

In this module you'll dive into more advanced ways to manipulate strings using indexing, slicing, and advanced formatting. You'll also explore the more advanced data types: lists, tuples, and dictionaries. You'll learn to store, reference, and manipulate data in these structures, as well as combine them to store complex data structures.



### Course 44: Essential Mathematics for Machine Learning

Code: CBIT/20ITV044

**Duration: 30 Hours** 

SN	Registered & completed student	Total no. of students
0	Name	registered & completed
1	Keerthi Aluvala	
2	sree keerthi meghana Bhurugubanda	03
3	vivek reddy pokala	

### Introduction to Linear Algebra and to Mathematics for Machine Learning

In this first module we look at how linear algebra is relevant to machine learning and data science. Then we'll wind up the module with an initial introduction to vectors. Throughout, we're focusing on developing your mathematical intuition, not of crunching through algebra or doing long pen-and-paper examples. For many of these operations, there are callable functions in Python that can do the adding up - the point is to appreciate what they do and how they work so that, when things go wrong or there are special cases, you can understand why and what to do.

### Vectors are objects that move around space

In this module, we look at operations we can do with vectors - finding the modulus (size), angle between vectors (dot or inner product) and projections of one vector onto another. We can then examine how the entries describing a vector will depend on what vectors we use to define the axes - the basis. That will then let us determine whether a proposed set of basis vectors are what's called 'linearly independent.' This will complete our examination of vectors, allowing us to move on to matrices in module 3 and then start to solve linear algebra problems.

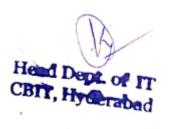
#### Matrices in Linear Algebra: Objects that operate on Vectors

Now that we've looked at vectors, we can turn to matrices. First we look at how to use matrices as tools to solve linear algebra problems, and as objects that transform vectors. Then we look at how to solve systems of linear equations using matrices, which will then take us on to look at inverse matrices and determinants, and to think about what the determinant really is, intuitively speaking. Finally, we'll look at cases of special matrices that mean that the determinant is zero or where the matrix isn't invertible - cases where algorithms that need to invert a matrix will fail.



### Matrices make linear mappings

In Module 4, we continue our discussion of matrices; first we think about how to code up matrix multiplication and matrix operations using the Einstein Summation Convention, which is a widely used notation in more advanced linear algebra courses. Then, we look at how matrices can transform a description of a vector from one basis (set of axes) to another. This will allow us to, for example, figure out how to apply a reflection to an image and manipulate images. We'll also look at how to construct a convenient basis vector set in order to do such transformations. Then, we'll write some code to do these transformations and apply this work computationally.



Course 73: Essential Data Science with R software – 2: Sampling Theory

and Linear Regression Analysis

Code: CBIT/20ITV046

**Duration:** 30 Hours (Jan – Apr 2021)

SN O	Registered & completed student Name	Total no. of students registered & completed
1	SKM AQEEL	01

### **Syllabus**

Week 1: Introduction to data science and Calculations with R Software

Week 2: Basic Fundamentals of Sampling

Week 3: Simple Random Sampling

Week 4: Simple Random Sampling with R

Week 5: Stratified Random Sampling

**Week 6:** Stratified Random Sampling with R

Week 7: Bootstrap Methodology with R

**Week 8:** Introduction to Linear Models and Regression and Simple linear regression Analysis

**Week 9:** Simple Linear Regression Analysis with R

Week 10: Multiple Linear Regression Analysis

Week 11: Multiple Linear Regression Analysis with R

Week 12: Variable Selection using LASSO Regression

#### **Books and references**

- 1. Sampling Techniques: W.G. Cochran, Wiley (Low price edition available)
- 2. Sampling Methodologies and Applications: P.S.R.S. Rao, Chapman and Hall/ CRC
- 3. An introduction to the bootstrap, Bradley Efron, R.J. Tibshirani, Chapman and Hall/CRC 1994.
- 4. Introduction to Linear Regression Analysis by Douglas C. Montgomery, Elizabeth A. Peck, G. Geoffrey Vining (Wiley), Low price Indian edition is available.
- 5. Applied Regression Analysis by Norman R. Draper, Harry Smith (Wiley), and Low price Indian edition is available.
- 6. Linear Models and Generalizations Least Squares and Alternatives by C.R. Rao, H. Toutenburg, Shalabh, and C. Heumann (Springer, 2008)
- 7. Introduction to Statistics and Data Analysis With Exercises, Solutions and Applications in R Authors: Heumann, Christian, Schomaker, Michael, Shalabh, Publisher" Springer 2016
- 8. The R Software-Fundamentals of Programming and Statistical Analysis Pierre Lafaye de Micheaux, Rémy Drouilhet, Benoit Liquet, Springer 2013 9. A Beginner's Guide to R (Use R) By Alain F. Zuur, Elena N. Ieno, Erik H.W.G. Meesters, Springer 2009



Course 74: Advanced Graph Theory

Code: CBIT/20ITV048

**Duration:** 30 Hours (Feb – Apr 2021)

	SN O	Registered & completed student Name	Total no. of students registered & completed
ſ	1	SKM AQEEL	01

### **Syllabus**

**Week 1**: Introduction to Graphs & its Applications, Basics of Paths, Cycles, and Trails, Connection, Bipartite Graphs, Eulerian Circuits, Vertex Degrees and Counting, Degree-sum formula, The Chinese Postman Problem and Graphic Sequences.

**Week 2**: Trees and Distance, Properties of Trees, Spanning Trees and Enumeration, Matrix-tree computation, Cayley's Formula, Prufer code.

**Week 3**: Matchings and Covers, Hall's Condition, Min-Max Theorem, Independent Sets, Covers and Maximum Bipartite Matching, Augmenting Path Algorithm, Weighted Bipartite Matching, Hungarian Algorithm.

**Week 4**: Stable Matchings and Faster Bipartite Matching, Factors & Perfect Matching in General Graphs, Matching in General Graphs: Edmonds' Blossom Algorithm

**Week 5**: Connectivity and Paths: Cuts and Connectivity, k-Connected Graphs, Network Flow Ford-Fulkerson Labeling Algorithm, Max-Flow Mincut Theorem, Menger's Proof using Max-Flow Min-Cut Theorem.

**Week 6**: Vertex Coloring and Upper Bounds, Brooks' Theorem and Color-Critical Graphs, Counting Proper Colorings.

**Week 7**: Planar Graphs, Characterization of Planar Graphs, Kuratowski's Theorem, Wagner's Theorem.

**Week 8**: Line Graphs and Edge-coloring, Hamiltonian Graph, Traveling Salesman Problem and NP-Completeness, Dominating Sets.

#### **Books and references**

- 1. D.B. West, Introduction to Graph Theory, Prentice Hall, 2001
- 2. Jon Kleinberg and Eva Tardos, Algorithm Design, Addison-Wesley, 2005
- 3. J.A.Bondy and U.S.R.Murty: Graph Theory, Springer, 2008.
- 4. R.Diestel: Graph Theory, Springer(low price edition) 2000.
- 5. F.Harary: Graph Theory, Narosa, (1988)
- 6. C. Berge: Graphs and Hypergraphs, North Holland/Elsevier, (1973)



### Course 75: Privacy and security in online social media

Code: CBIT/20ITV049

**Duration:** 30 Hours (Jan - Apr 2021)

SN O	Registered & completed student Name	Total no. of students registered & completed
1	SKM AQEEL	01

### **Syllabus**

**Week 1:** What is Online Social Networks, data collection from social networks, challenges, opportunities, and pitfalls in online social networks, APIs

Week 2: Collecting data from Online Social Media.

Week 3: Trust, credibility, and reputations in social systems

Week 4: Trust, credibility, and reputations in social systems

Week 5: Online social Media and Policing

**Week 6:** Information privacy disclosure, revelation and its effects in OSM and online social networks

**Week 7:** Phishing in OSM & Identifying fraudulent entities in online social networks

Week 8: Refresher for all topics

