



COLLEGE OF ENGINEERING BHUBANESWAR (COEB)
Plot No.1 (A), CNI Complex, Patia, Bhubaneswar – 751024, Odisha, India.
[AFFILIATED TO BPUT, ODISHA]
www.coeb.ac.in

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ADD-ON COURSE : Data Science

[Programme: B.Tech, CSE]

Course Objectives:

To help students learn about data science that includes application of various methods on different kind of data like day to day data, scientific data, industrial data or big data; with application of techniques like formatting data, cleaning up data, summarizing data, analyzing data and plotting data with relevant methods.

SYLLABUS

Total Lecture Hours : 40

MODULE-I: Introduction to Data Science

[05 Hours]

- Overview
- Data Science and Analytics
- Types of Business Analytics
- Applications of Data Science
- Tools of Data Science

MODULE-II : Data Science and Python

[08 Hours]

Hands on with Pandas – Data Analysis library [Data Processing] ,Why Pandas? Features of Pandas, Data structures in Pandas, Series Creation, Accessing elements of series, Vectorizing Operations, Data Frame creation and viewing

MODULE-III: Working with Pandas

[10 Hours]

Data Handling missing values, Data operations with customized functions, Statistical functions in data operations, SQL operations in pandas, Converting result set into Data Frame , Data operations with customized functions, Statistical functions in data operations, SQL operations in pandas and data processing.

MODULE-IV: Mathematical Computation

[10 Hours]

Numpy, Powerful properties of numpy, Types of arrays, Attributes of nd-array, Basic operations, Accessing Array elements, creating functions for arrays, copy and view, universal functions, shape manipulations and Broadcasting.

MODULE-V: Hands on with Matplotlib library - [Basic Data Visualization] [07 periods]

Chart properties: create, label, format, Styling the charts, Types of presentation styles

PRINCIPAL
College of Engineering Bhubaneswar

Course Outcomes: After completion of the course, the students will be able to

- CO1: gain proficiency in using computation tools for data analysis as well as statistical data analysis.
- CO2: use computational and statistical tools to solve real-world problems, and they will clearly convey their findings in oral presentations and written reports.
- CO3: comprehend the significance of appropriate data management

Evaluation Process:

1. Attendance for the course is 75%, which is mandatory.
2. Minimum qualifying marks percentage for the course is 50.
3. Certificate will be issued after successful completion of course and assessment processes.

Learning resources:

Suggested Books:


1. Data Science Using Python and R; Chantal D. Larose; Daniel T. Larose · 2019
2. Introduction to Data Science: A Python Approach to Concepts, Laura Igual, Santi Seguí · 2017
3. A Hands-On Introduction to Data Science; Chirag Shah · 2020


Other Sources:

e-Learning Resources:

1. https://onlinecourses.nptel.ac.in/noc22_cs32
2. <https://archive.nptel.ac.in/courses/106/106/106106212>

Design and Developed by: Prof. (Dr.) Ashok Kumar Panda and Prof. Anugnya Pravamanjari


Principal
PRINCIPAL
College of Engineering Bhubaneswar


H.O.D. CSE
Head
Deptt. of Comp. Sc. & Engg.
College of Engineering Bhubaneswar


Principal
College of Engineering Bhubaneswar



DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

COLLEGE OF ENGINEERING BHUBANESWAR
Plot No.1 (A), CNI Complex, Patia, Bhubaneswar - 751024, Odisha, India.
[AFFILIATED TO BPUT, ODISHA]
www.coeb.ac.in

NOTICE

ADD-ON/CERTIFICATE COURSE

Ref No: COEB/CSE/2020/12 ✓

Date: 05/09/2020

It is for the information of all the students of **3rd/5th/7th** semester that the classes for the Add-On/Certificate Courses for the **Academic Year 2020-21** will commence as per the time table given below in **ONLINE** Mode. The registration process for the course will start from **05/09/2020**. The interested students to enroll themselves for the course are advised to contact the concerned Course Coordinators for the details.

Semester	Course Title	Course Coordinator	Date of Commencement
3rd	Problem Solving Skills	Prof. Anugnya Pravamanjari	14/09/2020
5th	Block Chain Technology and Application	Prof. Alaka Rout	14/09/2020
7th	Data Science	Prof. Hiren Praharaj	14/09/2020

The class timing will be from **5.30 pm to 7.30 pm**.

Copy to:

1. Office of the Registrar for kind Information.
2. Office of the Principal for kind information.
3. Departmental Notice Board.
4. Guard File

Splm 5/9/20
Head of the Department

Head
Deptt. of Comp. Sc. & Engg.
College of Engineering Bhubaneswar

Splm 5/9/20
Head of the Department

Head
Deptt. of Comp. Sc. & Engg.
College of Engineering Bhubaneswar

K Bhuy
PRINCIPAL
College of Engineering Bhubaneswar



COLLEGE OF ENGINEERING BHUBANESWAR (COEB)
ADD-ON COURSE ENROLLMENT SHEET

ON-LINE MODE

Name of the Department: Computer Science and Engineering	
Course Title: Data Science	
Semester : 7th	Academic Year: 2020-21
Duration: 40 hours	

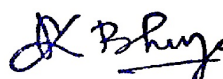
Student's Declaration/Undertaking

- I do hereby undertake to participate in the above mentioned add on course.
- I do hereby, promise to abide by the admissible rules and regulations, concerning discipline, attendance, etc. of the department, and also to follow the Code of Conduct prescribed for the students of the Institute, as in force from time to time.


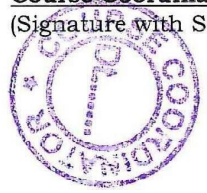
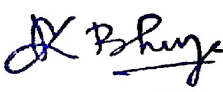
Sl. No.	Registration No.	Name of the Student	Remarks by the Course Coordinator
1	1701219002	ASISH KUMAR SINGH	Certified that the Enrollment Sheet is prepared by taking the consents of the students to enroll themselves in this Certificate Course (Add-On) to be conducted in Virtual Mode (ON-LINE) during the Pandemic COVID'19 through the link provided by the Department. They have also gone through the declaration/undertaking to be strictly abided by them during the course period.
2	1701219003	B ROHIT KUMAR	
3	1701219005	SAGAR MALLIK	
4	1701219006	ISHA CHAUDHARY	
5	1701219007	SMRUTIJIIT SWAIN	
6	1701219008	BALAKRUSHNA NAYAK	
7	1701219012	DEEPSHIKHA	
8	1701219014	ANKITA PRIYADARSHINI BHADRA	
9	1701219015	DESHRAJ PRADHAN	
10	1701219017	SIBABRATA BEHERA	
11	1701219019	SATYA RANJAN PARIDA	
12	1701219020	YASHA KUMARI	
13	1701219023	TUSHAR GAURABH JHA	
14	1701219027	SK ADNAN ALI	
15	1701219029	SATYABRATA MOHAPATRA	
16	1701219033	TUSHAR KANTI SENAPATI	
17	1701219038	TANMAYA PRASAD	
18	1701219041	PRABHUPRASAD PANDA	
19	1701219042	DEBASIS MEHER	
20	1701219043	AJIT KUMAR BEHERA	
21	1701219044	SHRIMAY DASH	
22	1701219047	MOUSUMI BEHERA	
23	1701219049	DEEPAK KUMAR	
24	1701219051	CHINMAYA ROSHAN MOHAPATRA	
25	1701219052	DIVYAJYOTI PATTANAYAK	
26	1701219055	SACHIN BISWAL	
27	1701219060	PRATIKSHYA PRIYADARSHINI	
28	1701219063	MADHURIMA BHOWMICK	
29	1701219065	DOLLY KUMARI	
30	1701219066	RAJASHREE PATRA	
31	1701219072	SUMAN SATYADEEP	
32	1701219073	ANJALI KUMARI	
33	1701219079	SAMAR MAHANTY	
34	1701219080	ANKIT KUMAR NAYAK	
35	1701219081	DIBYA PRAKASH PATRA	
36	1701219082	NISHANT KUMAR	
37	1701219083	SHRITAM SAHOO	
38	1701219085	ANSHU KUMAR	
39	1701219087	BARUN MUNDA	
40	1701219088	AKASH KAR	


Course Coordinator
(Signature with Seal)





PRINCIPAL
College of Engineering Bhubaneswar

Sl. No.	Registration No.	Name of the Student	Remarks by the Course Coordinator
41	1701219091	ABHILIPSA MAHAPATRA	<p>Certified that the Enrollment Sheet is prepared by taking the consents of the students to enroll themselves in this Certificate Course (Add-On) to be conducted in Virtual Mode (ON-LINE) during the Pandemic COVID'19 through the link provided by the Department.</p> <p>They have also gone through the declaration/undertaking to be strictly abided by them during the course period.</p> <p style="text-align: center;">  Course Coordinator (Signature with Seal) </p> <p style="text-align: center;">  </p> <p style="text-align: center;">  PRINCIPAL College of Engineering Bhubaneswar </p>
42	1701219094	JYOTISH RANJAN SATAPATHY	
43	1701219095	JYOTISMAR ROUT	
44	1701219097	SHUVRASIS SWAIN	
45	1701219098	SOMA DEBANJANI ROUT	
46	1701219099	SOUMYA RANJAN BEHERA	
47	1701219102	SUMANT MAHAPATRA	
48	1701219103	JYOTIRANJAN PAL	
49	1701219104	SHANTANU KUMAR	
50	1701219105	KAMAL BEHERA	
51	1701219106	MADHUSMITA GARNAYAK	
52	1701219107	NIHARIKA SINGH	
53	1701219108	PAYAL VERMA	
54	1701219109	PIYUSH KUMAR VERMA	
55	1701219110	PRATEEK ACHARYA	
56	1701219111	RAHUL KUMAR GUPTA	
57	1701219112	RAJESH RANJAN LENKA	
58	1701219113	RASHMI RANJAN SAHOO	
59	1701219114	RIYA RAWAT	
60	1701219115	ROJALINI SAHOO	
61	1701219116	SATYAPRAKASH RATH	
62	1701219117	SATYAM	
63	1701219118	SHAMS TABREZ	
64	1701219119	SHUVAM KARMAKAR	
65	1701219120	SHWETA SHREE KANUNGO	
66	1701219121	SIBA RANJAN TRIPATHY	
67	1701219122	SIDDHARTH RATAN BARUA	
68	1701219123	SUBHAM SWABHIMAN MISHRA	
69	1701219124	SUJIT KUMAR MAJHI	
70	1701219125	SUMAN KUMAR	
71	1701219126	SUSHREE BARSARANI SETHY	
72	1701219127	TAPATI KAMILA	
73	1701219128	TEJASWINI SAHU	
74	1701219129	TRINATH PATRA	
75	1701219130	VARUN MISHRA	
76	1701219131	VIKESH GIRI	
77	1701219198	AANCHAL LAL	
78	1701219199	ABHIJEET SARKAR	
79	1701219200	AIMAN ASHRAF SHAHAB	
80	1701219201	AKHELESH MAHATO	
81	1701219202	AMIT PRASAD MAJHI	
82	1701219203	ANKITA RAJ	
83	1701219204	CHAHAT KUMAR	
84	1701219205	DEEPSHIKHA	
85	1701219206	DIBAKAR KUMBHAR	
86	1701219207	DRISHTI	
87	1701219248	SHRIYANKA LENKA	
88	1701219249	EPSITA JENA	



**COLLEGE OF ENGINEERING BHUBANESWAR (COEB)
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
ADD ON/CERTIFICATE COURSE**

STUDENT ATTENDANCE SHEET

K. Bhuj
PRINCIPAL
College of Engineering Bhubaneswar

ON-LINE MODE

Programme: **B.Tech in Computer Science and Engineering**

Semester: **7th**

Academic Year: 2020-21

Name of the Course: **DATA SCIENCE**

Course Code (if any):

Duration : 40 hours			Remarks by the Course Coordinator (P-Present, A-Absent)										Remarks
SL. NO.	Reg. No./ Enrollment No.	NAME OF THE STUDENT	Date 14/9/20	Date 15/9/20	Date 16/9/20	Date 18/9/20	Date 21/9/20	Date 22/9/20	Date 23/9/20	Date 24/9/20	Date 25/9/20	Date 28/9/20	
1	1701219002	ASISH KUMAR SINGH	P	P	P	P	P	P	P	P	P	A	Certified that this Certificate course is conducted in virtual mode (ON-LINE) because of the Pandemic COVID-19. The attendance is taken with the remarks P-Present and A-Absent for the students.
2	1701219003	B ROHIT KUMAR	P	P	P	P	P	P	P	P	P	P	
3	1701219005	SAGAR MALLIK	P	P	P	P	P	P	P	P	P	P	
4	1701219006	ISHA CHAUDHARY	P	P	P	P	P	P	P	P	P	P	
5	1701219007	SMRUTIJJIT SWAIN	P	P	P	P	P	A	P	P	P	P	
6	1701219008	BALAKRUSHNA NAYAK	P	P	P	P	P	P	P	P	P	P	
7	1701219012	DEEPSHIKHA	P	P	P	P	P	P	P	P	A	P	
8	1701219014	ANKITA PRIYADARSHINI	P	P	A	P	P	P	P	P	P	A	
9	1701219015	DESHRAJ PRADHAN	P	P	P	P	A	P	P	P	P	A	
10	1701219017	SIBABRATA BEHERA	P	P	P	P	P	P	P	P	A	P	
11	1701219019	SATYA RANJAN PARIDA	P	P	P	P	P	P	P	P	P	P	
12	1701219020	YASHA KUMARI	P	P	P	A	P	P	P	P	P	P	
13	1701219023	TUSHAR GAURABH JHA	P	P	P	P	P	P	P	P	P	P	
14	1701219027	SK ADNAN ALI	P	P	P	A	P	P	P	P	P	P	
15	1701219029	SATYABRATA MOHAPATRA	A	P	P	A	P	P	P	P	P	P	
16	1701219033	TUSHAR KANTI SENAPATI	P	P	P	P	P	P	P	P	P	P	
17	1701219038	TANMAYA PRASAD	P	P	P	P	A	P	P	P	P	P	
18	1701219041	PRABHUPRASAD PANDA	P	P	P	P	P	P	P	A	P	P	
19	1701219042	DEBASIS MEHER	P	P	P	P	A	P	P	P	P	P	
20	1701219043	AJIT KUMAR BEHERA	P	P	P	P	P	P	P	A	P	P	
21	1701219044	SHRIMAY DASH	P	A	P	P	P	P	P	P	P	P	
22	1701219047	MOUSUMI BEHERA	P	P	P	P	P	A	P	P	P	P	
23	1701219049	DEEPAK KUMAR	P	P	P	A	P	P	P	P	A	P	
Signature of the Course Coordinator			<i>H.K.P.</i>	<i>H.K.P.</i>	<i>H.K.P.</i>	<i>H.K.P.</i>	<i>H.K.P.</i>	<i>H.K.P.</i>	<i>H.K.P.</i>	<i>H.K.P.</i>	<i>H.K.P.</i>	<i>H.K.P.</i>	

H.K.P.
Course Coordinator
(Signature with Seal)



SL. NO.	Reg. No./ Enrollment No.	NAME OF THE STUDENT	Date 14/9/20	Date 15/9/20	Date 16/9/20	Date 18/9/20	Date 21/9/20	Date 22/9/20	Date 23/9/20	Date 24/9/20	Date 25/9/20	Date 30/9/20	Remarks	
24	1701219051	CHINMAYA R.MOHAPATRA	P	P	A	P	P	P	P	P	P	A	Certified that this Certificate course is conducted in virtual mode (ON-LINE) because of the Pandemic COVID-19. The attendance is taken with the remarks P-Present and A-Absent for the students.	
25	1701219052	DIVYAJYOTI PATTANAYAK	P	A	P	P	P	P	P	P	P	P		
26	1701219055	SACHIN BISWAL	P	P	P	A	P	P	P	P	P	P		
27	1701219060	PRATIKSHYA	P	P	P	P	P	P	P	P	P	A		
28	1701219063	MADHURIMA BHOWMICK	P	P	P	P	P	P	P	P	A	P		
29	1701219065	DOLLY KUMARI	P	P	P	P	A	P	P	P	A	P		
30	1701219066	RAJASHREE PATRA	P	P	P	P	P	P	A	P	P	P		
31	1701219072	SUMAN SATYADEEP	P	P	P	P	P	P	A	P	P	P		
32	1701219073	ANJALI KUMARI	P	P	P	P	P	P	P	P	P	P		
33	1701219079	SAMAR MAHANTY	P	P	P	A	P	P	P	A	P	P		
34	1701219080	ANKIT KUMAR NAYAK	P	P	P	P	P	A	P	P	P	P		
35	1701219081	DIBYA PRAKASH PATRA	P	P	A	P	P	P	P	P	P	P		
36	1701219082	NISHANT KUMAR	P	A	P	P	P	A	P	P	P	P		
37	1701219083	SHRITAM SAHOO	P	P	P	P	P	P	P	A	P	P		
38	1701219085	ANSHU KUMAR	P	P	P	P	P	A	P	P	P	P		
39	1701219087	BARUN MUNDA	P	P	P	A	P	P	P	A	P	P		
40	1701219088	AKASH KAR	P	P	P	P	P	P	P	P	A	A		
41	1701219091	ABHILIPSA MAHAPATRA	P	P	P	P	P	A	P	P	P	P		
42	1701219094	JYOTISH RANJAN	P	P	P	P	P	P	P	P	A	P		
43	1701219095	JYOTISMAR ROUT	P	A	P	A	P	P	P	P	P	A		
44	1701219097	SHUVRASIS SWAIN	P	P	P	P	P	P	P	P	P	P		
45	1701219098	SOMA DEBANJANI ROUT	P	P	P	A	P	P	P	P	A	P		
46	1701219099	SOUMYA RANJAN BEHERA	P	P	P	P	P	A	P	P	P	P		
47	1701219102	SUMANT MAHAPATRA	A	P	P	P	P	P	P	P	A	P		
48	1701219103	JYOTIRANJAN PAL	P	P	P	P	A	P	P	P	P	A		
49	1701219104	SHANTANU KUMAR	P	P	P	P	P	P	A	P	P	P		
50	1701219105	KAMAL BEHERA	P	P	P	A	P	P	P	P	P	P		
51	1701219106	MADHUSMITA GARNAYAK	P	P	P	P	P	P	P	P	P	P		
52	1701219107	NIHARIKA SINGH	P	P	P	P	P	P	P	P	P	P		
Signature of the Course Coordinator			Hkr	Hkr	Hkr	Hkr	Hkr	Hkr	Hkr	Hkr	Hkr	Hkr		

Hkr
Course Coordinator
(Signature with Seal)



K. Bhujang
PRINCIPAL

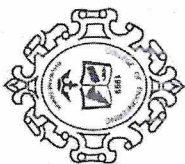
College of Engineering Bhubaneswar

SL. NO.	Reg. No./ Enrollment No.	NAME OF THE STUDENT	Date 14/9/20	Date 15/9/20	Date 16/9/20	Date 18/9/20	Date 21/9/20	Date 22/9/20	Date 23/9/20	Date 24/9/20	Date 25/9/20	Date 28/9/20	Remarks	
53	1701219108	PAYAL VERMA	P	P	P	A	P	P	P	P	P	P	Certified that this Certificate course is conducted in virtual mode (ON-LINE) because of the Pandemic COVID-19. The attendance is taken with the remarks P-Present and A-Absent for the students.	
54	1701219109	PIYUSH KUMAR VERMA	A	A	A	A	A	A	A	A	A	A		
55	1701219110	PRATEEK ACHARYA	P	P	P	A	P	P	P	P	P	A		
56	1701219111	RAHUL KUMAR GUPTA	P	P	P	P	P	P	P	P	P	P		
57	1701219112	RAJESH RANJAN LENKA	P	P	P	P	P	A	P	P	P	P		
58	1701219113	RASHMI RANJAN SAHOO	P	P	A	A	P	P	P	P	P	P		
59	1701219114	RIYA RAWAT	P	P	P	P	P	P	P	A	P	P		
60	1701219115	ROJALINI SAHOO	P	P	P	P	P	P	P	P	P	A		
61	1701219116	SATYAPRAKASH RATH	P	P	P	P	P	P	A	P	P	P		
62	1701219117	SATYAM	P	P	P	P	P	A	P	P	P	P		
63	1701219118	SHAMS TABREZ	P	P	A	P	P	P	P	P	P	P		
64	1701219119	SHUVAM KARMAKAR	A	P	P	P	A	P	P	P	P	P		
65	1701219120	SHWETA SHREE	P	P	P	P	P	P	A	P	P	P		
66	1701219121	SIBA RANJAN TRIPATHY	P	P	P	P	P	P	P	A	P	P		
67	1701219122	SIDDHARTH RATAN BARUA	A	A	A	A	A	A	A	A	A	A		
68	1701219123	SUBHAM SWABHIMAN	P	P	P	P	P	P	A	P	P	P		
69	1701219124	SUJIT KUMAR MAJHI	P	P	P	P	P	P	P	A	P	P		
70	1701219125	SUMAN KUMAR	P	P	P	P	P	A	P	P	P	P		
71	1701219126	SUSHREE BARSARANI	P	A	P	A	P	P	P	P	P	P		
72	1701219127	TAPATI KAMILA	P	P	P	P	P	A	P	P	P	P		
73	1701219128	TEJASWINI SAHU	P	P	P	P	A	P	P	P	P	P		
74	1701219129	TRINATH PATRA	P	P	P	A	P	P	P	P	P	A		
75	1701219130	VARUN MISHRA	P	P	A	P	A	P	P	P	P	P		
76	1701219131	VIKESH GIRI	A	P	P	A	P	P	P	P	P	P		
77	1701219198	AANCHAL LAL	P	P	P	P	P	P	A	P	P	P		
78	1701219199	ABHIJEET SARKAR	P	A	P	P	P	P	P	P	P	P		
79	1701219200	AIMAN ASHRAF SHAHAB	A	A	A	A	A	A	A	A	A	A		
80	1701219201	AKHELESH MAHATO	P	P	P	A	P	P	P	P	P	P		
81	1701219202	AMIT PRASAD MAJHI	P	A	P	P	P	A	P	A	P	P		
Signature of the Course Coordinator			Hkp	Hkp	Hkp	Hkp	Hkp	Hkp	Hkp	Hkp	Hkp	Hkp		

Hkp
Course Coordinator
(Signature with Seal)



K. Bhuj
PRINCIPAL
College of Engineering Bhubaneswar



COLLEGE OF ENGINEERING BHUBANESWAR

PLOT NO-1(A), CNI COMPLEX, PATIA, BHUBANESWAR, KHORDHA, ODISHA-751024



Certificate of Completion

This is to certify that Mr./Ms. SAURAV SINGH SHKRAWAR student of the Department

of Computer Science Engg. semester Seventh bearing registration number 1601219065

has successfully completed the ADD-ON Course titled Data Science

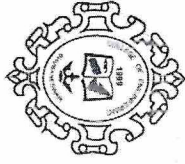
conducted at College of Engineering Bhubaneswar in the academic year 2020-21

TRUE COPY

Course-Coordinator

Principal

PRINCIPAL
College of Engineering Bhubaneswar



COLLEGE OF ENGINEERING BHUBANESWAR

PLOT NO-1(A), CNI COMPLEX, PATIA, BHUBANESWAR, KHORDHA, ODISHA-751024



Certificate of Completion

This is to certify that Mr./Ms. SUVENDU DASH student of the Department

of Computer Science Engg. semester Seventh bearing registration number 1601219066

has successfully completed the ADD-ON Course titled Data Science

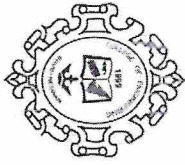
conducted at College of Engineering Bhubaneswar in the academic year 2020-21.

TRUE COPY

Course-Coordinator

Principal

PRINCIPAL
College of Engineering Bhubaneswar



COLLEGE OF ENGINEERING BHUBANESWAR
PLOT NO-1(A), CNI COMPLEX, PATIA, BHUBANESWAR, KHORDHA, ODISHA-751024



Certificate of Completion

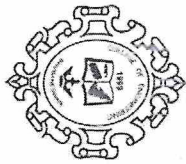
This is to certify that Mr./Ms. NIKHIL KUMAR PADHY student of the Department
of Computer Science Engg. semester Seventh bearing registration number 1601219165
has successfully completed the ADD-ON Course titled Data Science
conducted at College of Engineering Bhubaneswar in the academic year 2020-21.

TRUE COPY

APB
Course-Coordinator

[Signature]
Principal

[Signature]
PRINCIPAL
College of Engineering Bhubaneswar



COLLEGE OF ENGINEERING BHUBANESWAR
PLOT NO-1(A), CNI COMPLEX, PATIA, BHUBANESWAR, KHORDHA, ODISHA-751024



Certificate of Completion

This is to certify that Mr./Ms. DIBYA SHREE PATRA, student of the Department

of Computer Science Engg. semester Seventh bearing registration number 1601219166

has successfully completed the ADD-ON Course titled Data Science

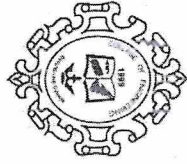
conducted at College of Engineering Bhubaneswar in the academic year 2020-21.

TRUE COPY


Course-Coordinator


Principal


PRINCIPAL
College of Engineering Bhubaneswar



COLLEGE OF ENGINEERING BHUBANESWAR
PLOT NO-1(A), CNI COMPLEX, PATIA, BHUBANESWAR, KHORDHA, ODISHA-751024



Certificate of Completion

This is to certify that Mr./Ms. SNEHASIS PRASAD SINGH student of the Department
of Computer Science Engg. semester Seventh bearing registration number 1601219167
has successfully completed the ADD-ON Course titled Data Science
conducted at College of Engineering Bhubaneswar in the academic year 2020-21.

TRUE COPY

Course-Coordinator

Principal

PRINCIPAL
College of Engineering Bhubaneswar