

Topics / lectures are arranged in sequence - same - as to be taught in the class. Maintain data related to "Date" in its hard copy.

S. No.	Lecture No	Topic Description	Teaching Pedagogy	Reference Material	Remarks, if any
1	1	Big Data: Introduction,	Board + PPT	T1	
2	2	characteristics, types,	Board + PPT	T1	
3	3	sources, examples,	Board + PPT	T1	
4	4	technologies;	Board + PPT	T1	
5	5	Integrating diverse data;	Board + PPT	T1	
6	6	Introduction to Hadoop, Map Reduce	Board + PPT	T1	
7	7	Hadoop Components:HDFS	Board + PPT	T1	
8	8	YARN and its Components	Board + PPT	T1, T2	
9	9	open source technologies	Board + PPT	T1, T2	
10	10	Introduction to NoSQL,	Board + PPT	T1, T2	
11	11	Schedulers and mode of clusters	Board + PPT	T1, T2	
12	12	aggregate data models.	Board + PPT	T1, T2	
13	13	Revision	Board + PPT	T1, T2	
14	14	Data Science: Getting Value out of Big Data,	Board + PPT	T1, T2	
15	15	Building a Big Data Strategy,	Board + PPT	T3	
16	16	Five Components of Data Science,	Board + PPT	T3	
17	17	Five P's of Data Science.	Board + PPT	T3	
18	18	Steps in the Data Science Process.	Board + PPT	T3	
19	19	Big Data Modeling and Management: Data Ingestion,	Board + PPT	T3	
20	20	Class Presentation	Board + PPT	T3	
21	21	Data Storage, Data Quality	Board + PPT	T3	
22	22	, Data Operations,	Board + PPT	T3	
23	23	Data Scalability and Security,	Board + PPT	T3	
24	24	Real Big Data Management Applications.	Board + PPT	T3	
25	25	Revision Class/Class Test	Board + PPT	T4	
26	26	Real time data acquisition,	Board + PPT	T4	
27	27	Review of transducer,	Board + PPT	T4	
28	28	Introduction about Instrumentation system.	Board + PPT	T4	
29	29	Types of Instrumentation system.	Board + PPT	T4	
30	30	Data acquisition system and its uses in intelligent	Board + PPT	T4	
31	31	Instrumentation system	Board + PPT	T4	
32	32	. Detail study of each block involved in making of DAS,	Board + PPT	T4	
33	33	Class Presentation	Board + PPT	T4	
34	34	Signal conditioners as DA, IA,	Board + PPT	T4	
35	35	signal converters (ADC), Sample and hold.	Board + PPT	T4	
36	36	Designing application for Pressure, Temperature measurement system using DAS.	Board + PPT	T4	
37	37	Data logger	Board + PPT	T4	
38	38	Revision Class/Class Test	Board + PPT	T1	
39	39	Data Analysis: Introduction,	Board + PPT	T5	
40	40	various techniques like Classification,	Board + PPT	T5	
41	41	regression,	Board + PPT	T5	
42	42	clustering,	Board + PPT	T5	
43	43	association analysis,	Board + PPT	T5	
44	44	and graph analysis.	Board + PPT	T5	
45	45	Class Presentation	Board + PPT	T5	
46	46	MapReduce workflows,	Board + PPT	T1,T2	

47	47	anatomy of MapReduce job run,	Board + PPT	T1,T2	
48	48	classic Map	Board + PPT	T1,T2	
49	49	Revision Class/Class Test	Board + PPT		
50	50				
51	51				
52	52				
53	53				
54	54				

Study Material / Books / Web-resources / Online Courses Links etc.

S. No.	Description
1	Hadoop: The Definitive Guide by Tom White, 3rd Edition, O'reilly
2	Hadoop in Practice by Alex Holmes, MANNING Publ.
3	Introduction To Data Science Practical Approach With R and Python, Willey
4	https://www.iqsdirectory.com/articles/data-acquisition-system.html
5	https://www.datacamp.com/blog/what-is-data-analysis-expert-guide

