Course Title: **Unstructured Data Analytics (Elective-1)**										
Semester	IV	Teaching Scheme				Evaluation				
Term	Even					Theory			Practical	
		Th	Tu	Pr	Credits	TAE	CAE	ESE	INT	EXT
Course Category	EL	3	--	--	3	10	15	50	--	--
Course Code	UDSL211									
Teaching Mode	Offline	3			Total	75				
Duration of ESE	3 Hrs					75				

Course Objectives	Discuss various issues and challenges in unstructured data management To prepare students with fundamental knowledge and skills in unstructured data management. Introduce the best practices, underlying principles, and emerging technologies in storing, retrieving, and analyzing unstructured data.
Course Outcomes	Upon successful completion of this course, student will be able to:
	CO1: Understand the concept of unstructured Analytics
	CO2: Collect and integrate unstructured data from multiple sources
	CO3: Experiment the techniques to manage and store unstructured data
	CO4: Analyze the concept of Big data & Hadoop.
	CO5: Visualize unstructured data techniques and explore the platforms

Mapping of Course Outcomes with Program Outcomes and Program Specific Outcomes:

Course Outcome	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2
CO1	1	1										1	1	1
CO2		2		1								2	2	1
CO3	2	2	3	2	3							2	3	2
CO4	2	3	2	2							1	2	3	2
CO5	1	2	3	2	3						1	1	3	2

Course Contents:

Unit	Contents	Hours
I	**Unstructured Data Analytics:** , Introduction, History of Data Analytics, The Next Frontier of Analytics Innovation: Introduction, What Is the Analytics Age? Unstructured Data Analytics: Structured verses unstructured data analysis, what is UDA-Uses, working. The Framework to Put UDA to Work, Text Parsing Example. Customer Acquisition and Retention with UDA.	8
II	**No SQL Databases:** Introduction to Non-Relational database and its storage, conversion of structured to unstructured databases Introduction to Mongo DB, Mongo DB Concepts-Data model, Create and Drop Database, Create and Drop Collection, Data types, Insert, Query, Update, Delete document, Indexing, Replication, Deployment.	8
III	**Big Data:** Architecture, Understanding different Hadoop modes, Understanding Hadoop features, The HDFS and Map Reduce architecture. Case studies of Social Media's contents like Facebook Twitter should be included with applications, Analysis and impact	8
IV	**Graphs databases** Graphical Displays-Time Series Plots, Plotting Smoothed Data, numerical Description of Time Series Data-Stationary Time Series, Auto covariance and Autocorrelation Functions, Transformations.	8
V	**Unstructured data techniques and platforms:** Tools for Unstructured Data Analytics: Introduction, need, uses Monkey, learn, Amazon AWS, Microsoft Azure, IBM Cloud. Next-generation unstructured data analysis tools. The Future of Analytics.	8

Text Books	1.	Unstructured Data Analytics, Jean Paul Isson
	2.	Introduction To Time Series Analysis And Forecasting, Douglas C.Montgomery
	3.	Peter Membrey, David How, Eelco Plugge, Mongodb Basics, Apress, 2014
Reference Books	1.	Big Data Analytics With R And Hadoop, Vignesh Prajapati, PACKT
	2.	Al Sweigart, Automate The Boring Stuff With Python: Practical Programming For Total Beginners, No Starch Press, 2015
	3.	Ryan Mitchell, Web Scraping With Python: Collecting More Data From The Modern Web 2nd Edition, O'Reilly Media, Inc. 2018
On-line TL Material	1.	Https://Www.Json.Org/Json-En.Html
	2.	Https://Www.Mongodb.Com/Basics