

SOCIAL MEDIA ANALYTICS

(Honors)

Course Code		Year	III	Semester	I
Course Category	Honors	Branch	IT	Course Type	Theory
Credits	4	L-T-P	4-0-0	Prerequisites	Big Data Analytics
Continuous Internal Evaluation :	30	Semester End Evaluation:	70	Total Marks:	100

Course Outcomes		
Upon successful completion of the course, the student will be able to:		
CO1	Understand and Identify the various components of a web that can be used for mining process.	L2
CO2	Discover interesting patterns from Social Media Networks .	L3
CO3	Understand the structure of the web and the processes of Web crawling to create web applications.	L2
CO4	Analyze the emerging problems of social media analytics with sentiment analysis and opinion mining.	L3
Syllabus		
Unit No	Contents	Mapped CO
I	Defining Analytics in Social Media: Analytics in Social Media, Social Network Landscape, The Analytics Process, The Future of Social Media Analytics Web Mining: Information Retrieval and Web Search: Basic Concepts of Information Retrieval, Information Retrieval Models	CO1
II	Text and Web Page Pre-Processing: Stop word Removal, Stemming, Other Pre-Processing Tasks for Text, Web Page Pre-Processing, Duplicate Detection Social Network Analysis: HITS: HITS Algorithm, Finding Other Eigen vectors, Relationships with Co-Citation and Bibliographic Coupling, Strengths and Weaknesses of HITS	CO1,CO2
III	Web Crawling: A Basic Crawler Algorithm, Implementation Issues, Universal Crawlers, Focused Crawlers, Topical Crawlers, Evaluation, Crawler Ethics and Conflicts, Some New Developments	CO1, CO3
IV	Opinion Mining and Sentiment Analysis: The Problem of Opinion Mining, Document Sentiment Classification, Sentence Subjectivity and Sentiment Classification, Mining Comparative Opinions, Opinion Search and Retrieval, Opinion Spam Detection.	CO1, CO3,CO4
V	Web Usage Mining: Data Modeling for Web Usage Mining, Discovery and Analysis of Web Usage Patterns Recommender Systems and Collaborative Filtering: The Recommendation Problem, Content-Based Recommendation, Collaborative Filtering: <i>K</i> -Nearest Neighbor(<i>KNN</i>), Collaborative Filtering: Using Association Rules, Collaborative Filtering: Matrix Factorization	CO1, CO3,CO4

Learning Resources	
Text book:	
1	Social Media Analytics Strategy: Using Data to Optimize Business Performance Alex Gonçalves Las Vegas, Nevada, USA
2	Web Data Mining Exploring Hyperlinks, Contents, and Usage Data Bing Liu Second Edition Springer-Verlag Berlin Heidelberg
References :	
1	GautamShroff,“EnterpriseCloudComputing”,Cambridge,2010 Scott Granneman, “Google Apps Deciphered: Compute in the Cloud to Streamline Your Desktop”, Pearson Education, 2008.
2	Social Media Analytics Techniques and Insights from Extracting Business Value Out of Social media Matthew Gains ,Avinash Kohirkar IBM press
e-Resources and other Digital Material	
1	https://nptel.ac.in/courses/110107129
2	https://emplifi.io/resources/blog/social-media-analytics-the-complete-guide