Practical Plan

Branch: Computer Engineering

Semester: VIII   **Year: 2022-23**

Course Title: Social Media Analytics lab (CSDL8023)	SEE: 2 Hours – Practical
Total Contact Hours: 20 Hours	
Practical Plan Author: Prof. Ankita Amburle	Date:
Checked By:	Date:

Prerequisites: knowledge of Python

Course Outcomes (CO):

On successful completion of course learner will be able to:

CSDL8023.1:   Explain the characteristics and types of social media networks.
CSDC8023.2:   Use social media analytics tools for business
CSDC8023.3:   Collect, monitor , store and track social media data
CSDC8023.4:   Analyze and visualize social media data from multiple platforms
CSDC8023.5:   Design and develop content and structure based social media analytics models
CSDC8023.6:   Design and implement social media analytics applications for business.

	List of Experiments	
Sr.	**Lab Experiment Name**	**CO**
1.	Study various - i) Social Media platforms (Facebook, twitter, YouTube etc) ii) Social Media analytics tools (Facebook insights, google analytics netlytic etc) iii) Social Media Analytics techniques and engagement metrics (page level, post level, member level) iv) Applications of Social media analytics for business. e.g. Google Analytics https://marketingplatform.google.com/about/analytics/ https://netlytic.org	CSDL8023 .1
2.	Data Collection-Select the social media platforms of your choice (Twitter, Facebook, LinkedIn, YouTube, Web blogs etc) ,connect to and capture social media data for business (scraping, crawling, parsing).	CSDL8023 .1,CSDL8023 .2
3.	Data Cleaning and Storage- Preprocess, filter and store social media data for business (Using Python, MongoDB, R, etc).	CSDL8023 .3
4.	Exploratory Data Analysis and visualization of Social Media Data for business.	CSDL8023 .4
5.	Develop Content (text, emoticons, image, audio, video) based social media analytics model for business. (e.g. Content Based Analysis :Topic , Issue ,Trend, sentiment/opinion analysis, audio, video, image analytics)	CSDL8023 .4
6	Develop Structure based social media analytics model for any business. (e.g. Structure Based Models -community detection, influence analysis)	CSDL8023 .5
7.	Develop a dashboard and reporting tool based on real time social media data.	CSDL8023 .5
8.	Design the creative content for promotion of your business on social media	CSDL8023 .5,CSDL8023 .4
9.	Analyze competitor activities using social media data.	CSDL8023 .6

10.	Develop social media text analytics models for improving existing product/ service by analyzing customer's reviews/comments			CSDL8023 .6	

CO-PO Mapping: (BL – Blooms Taxonomy, C – Competency, PI – Performance Indicator)

CO	BL	C	PI	PO	Mapping
CSDL8023.1	2	2.4	2.4.2	PO2	2
		5.2	5.2.1	PO5	1
CSDL8023.2	2, 3	4.3	4.3.1	PO4	3
			4.3.3		3
		5.1	5.1.2	PO5	1
		5.3	5.3.2		2
		6.1	6.1.1	PO6	1
CSDL8023.3	2,4	3.2	3.2.1	PO3	1
			3.2.3		2
		5.3	5.3.1	PO5	2
CSDL8023.4	4,6	2.4	2.4.2	PO2	2
		5.2	5.2.2	PO5	1
		6.1	6.1.1	PO6	1
CSDL8023.5	6	4.3	4.3.1	PO4	1
			4.3.3		3
		5.1	5.1.2	PO5	1
CSDL8023.6	2,6	4.3	4.3.3	PO4	3
		5.2	5.2.2	PO5	2
		5.3	5.3.2	PO5	3

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CSDL8023.1		2			1							
CSDL8023.2				3	2	1						
CSDL8023.3			2		2							
CSDL8023.4		2			1	1						
CSDL8023.5				3	1							
CSDL8023.6				3	3							

CO-PSO Mapping:

CO	BL	C	PI	PO	Mapping
CSDL8023.2	2,3	1.4	1.4.1	PSO1	1
CSDL8023.3	2,4	1.3	1.3.3	PSO1	1
CSDL8023.4	4,6	1.4	1.4.2	PSO1	1
CSDL8023.5	6	1.3	1.3.1	PSO1	1
CSDL8023.6	2,6	1.4	1.4.2	PSO1	1

	PSO1	PSO2
CSDL8023.1	-	-
CSDL8023.2	1	-
CSDL8023.3	1	-
CSDL8023.4	1	-
CSDL8023.5	1	-
CSDL8023.6	1	-

CO Measurement Weightages for Tools:

Course Outcomes	Direct Methods (80%)				Indirect Method (20%)
	Lab Performa	Assignments/Post Lab Questions	Quizzes	End Sem Exam (TW)	Course exit survey
CSDL8023.1	30%	10%	10%	50%	100%
CSDL8023.2	30%	10%	10%	50%	100%
CSDL8023.3	30%	10%	10%	50%	100%
CSDL8023.4	30%	10%	10%	50%	100%
CSDL8023.5	30%	10%	10%	50%	100%
CSDL8023.6	30%	10%	10%	50%	100%

Attainment:

CSDL8023.1:

Direct Method

$$A_{\text{CSDL8023.1}D} = 0.3 * Lab\ Performance + 0.1 * Assignment/Post\ Lab + 0.1 * Quizzes + 0.6 * SEE\_TW$$

Final Attainment:

$$A_{\text{CSDL8023.1}} = 0.8 * A_{\text{CSDL8023.1}D} + 0.2 * A_{\text{CSDL8023.1}I}$$

CO CSDL8023.2:

Direct Method

$$A_{\text{CSDL8023.2}D} = 0.3 * Lab\ Performance + 0.1 * Assignment/Post\ Lab + 0.1 * Quizzes + 0.6 * SEE\_TW$$

Final Attainment:

$$A_{\text{CSDL8023.2}} = 0.8 * A_{\text{CSDL8023.2}D} + 0.2 * A_{\text{CSDL8023.2}I}$$

CO CSDL8023.3:

Direct Method

$$A_{\text{CSDL8023.3}D} = 0.3 * Lab\ Performance + 0.1 * Assignment/Post\ Lab + 0.1 * Quizzes + 0.6 * SEE\_TW$$

Final Attainment:

$$A_{\text{CSDL8023.3}} = 0.8 * A_{\text{CSDL8023.3}D} + 0.2 * A_{\text{CSDL8023.3}I}$$

CO CSDL8023.4:

Direct Method

$$A_{\text{CSDL8023.4}D} = 0.3 * Lab\ Performance + 0.1 * Assignment/Post\ Lab + 0.1 * Quizzes + 0.6 * SEE\_TW$$

Final Attainment:

$$A_{\text{CSDL8023.4}} = 0.8 * A_{\text{CSDL8023.4}D} + 0.2 * A_{\text{CSDL8023.4}I}$$

CO CSDL8023.5:

Direct Method

$$A_{\text{CSDL8023.5}D} = 0.3 * Lab\ Performance + 0.1 * Assignment/Post\ Lab + 0.1 * Quizzes + 0.6 * SEE\_TW$$

Final Attainment:

$$A_{\text{CSDL8023.5}} = 0.8 * A_{\text{CSDL8023.5}D} + 0.2 * A_{\text{CSDL8023.5}I}$$

CO CSDL8023.6:

Direct Method

$$A_{\text{CSDL8023.6}D} = 0.3 * Lab\ Performance + 0.1 * Assignment/Post\ Lab + 0.1 * Quizzes + 0.6 * SEE\_TW$$

Final Attainment:

$$A_{\text{CSDL8023.6}} = 0.8 * A_{\text{CSDL8023.6}D} + 0.2 * A_{\text{CSDL8023.6}I}$$

Resourses:

1. https://blog.hootsuite.com/social-media-analytics/
2. https://app.powerbi.com/

Practical Session Plan

Batch	Dates		Remarks
	Planned	*Actual*	
Experiment No. 1 Study various - i) Social Media platforms (Facebook, twitter, YouTube etc) ii) Social Media analytics tools (Facebook insights, google analytics netlytic etc) iii) Social Media Analytics techniques and engagement metrics (page level, post level, member level) iv) Applications of Social media analytics for business.			
A	24/01/2023	24/01/2023	
B	23/01/2023	23/01/2023	
C	27/01/2023	27/01/2023	
D	27/01/2023	27/01/2023	
Experiment No. 2 Data Collection-Select the social media platforms of your choice (Twitter, Facebook, LinkedIn, YouTube, Web blogs etc) ,connect to and capture social media data for business (scraping, crawling, parsing).			
A	01/02/2023	01/02/2023	
B	31/01/2023	31/01/2023	
C	3/02/2023	3/02/2023	
D	2/02/2023	2/02/2023	
Experiment No. 3 Data Cleaning and Storage- Preprocess, filter and store social media data for business (Using Python, MongoDB, R, etc).			
A	08/02/2023	08/02/2023	
B	07/02/2023	07/02/2023	
C	10/02/2023	10/02/2023	
D	9/02/2023	9/02/2023	
Experiment No. 4 Exploratory Data Analysis and visualization of Social Media Data for business.			
A	15/02/2023	15/02/2023	
B	14/02/2023	14/02/2023	
C	17/02/2023	17/02/2023	
D	16/02/2023	16/02/2023	
Experiment No. 5 Develop Content (text, emoticons, image, audio, video) based social media analytics model for business. (e.g. Content Based Analysis :Topic , Issue ,Trend, sentiment/opinion analysis, audio, video, image			
A	22/02/2023	22/02/2023	
B	21/02/2023	21/02/2023	
C	24/02/2023	24/02/2023	
D	23/02/2023	23/02/2023	
Experiment No. 6 Develop Structure based social media analytics model for any business. (e.g. Structure Based Models - community detection, influence analysis)			

A	08/03/2023	08/03/2023	
B	14/03/2023	14/03/2023	
C	10/03/2023	10/03/2023	
D	9/03/2023	9/03/2023	

Experiment No. 7

Develop a dashboard and reporting tool based on real time social media data.

A	15/03/2023	15/03/2023	
B	14/03/2023	14/03/2023	
C	17/03/2023	17/03/2023	
D	16/03/2023	16/03/2023	

Experiment No. 8

Design the creative content for promotion of your business on social media

A	29/03/2023	29/03/2023	
B	28/03/2023	28/03/2023	
C	31/03/2023	31/03/2023	
D	23/03/2023	23/03/2023	

Experiment No. 9

Analyze competitor activities using social media data.

A	05/04/2023	05/04/2023	
B	28/03/2023	28/03/2023	
C	6/04/2023	6/04/2023	
D	6/04/2023	6/04/2023	

Experiment No. 10

Develop social media text analytics models for improving existing product/ service by analyzing customer's reviews/comments

A	12/04/2023	12/04/2023	
B	11/04/2023	11/04/2023	
C	13/04/2023	13/04/2023	
D	13/04/2023	13/04/2023	

Verified by:

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(DQAC Coordinator)   (Subject Expert)