



**Subject Name: Social Network Analysis**  
**Subject Code : CTMSCS SIII P5 EL2 Option 1**

**Teaching and Evaluation Scheme:**

Teaching Scheme					Evaluation Scheme								
Th	Tu	Pr	C	TCH	Theory						Practical		Total
					Internal Exams				University Exams		University Exams (LPW)		
					TA-1/TA-2		MSE		Marks	Hrs	Marks	Hrs	
					Marks	Hrs	Marks	Hrs					
3	0	0	3	3	25	45 min	50	1.5	100	3	-	-	200

\*Note: TA-2 will be in form of assignments or workshops

**UNIT-I**

**Social Networking**

- Fundamentals of Social Networking, Social Networking viral, why social networking is popular, Psychology & Sociology for Online Media, Concepts of Geospatial Information System, How Facebook works?

**UNIT-II**

**Social Media & Legal Implication**

- Graph Theory and Social Networks, Markets and Strategic Interactions in Networks, Information Networks and the World Wide Web, Network Dynamics: Population and Structural Models, Legal aspects of Privacy in India, Institutions and Aggregate Behavior, social media and its impact on Business, Politics, Law and Revolutions, Legal Responsibilities for Social Networking.

**UNIT-III**

**Information Gathering from Resources**

- Intelligence gathering, People searching, OSINT, Deep Web, Defamatory content analysis, Multimedia forensics over Social Networking, Emerging Trends in Social Networks

**UNIT-IV**

**Social Networking exploitation and hacking**

- Introduction: hacking on Twitter data Micro formats: semantic Markup and common sense collide, Twitter: friends, followers, and set wise operations, Twitter: the tweet, LinkedIn: clustering your professional network for fun (and profit?), cosine similarity, and collocations, Facebook: the hacker's outlook

**UNIT-V**

**Social Networking Forensics**

- Twitter GPS & Account Data, Hidden Social Network Content, Cell Phone Owner Information, Hidden, Photo GPS & Metadata, Deleted Websites & Posts, Website Owner Information, Alias Social Network Profiles, Additional User Accounts,

Sensitive Documents & Photos, Live Streaming Social Content, Videos Uploaded by Location, Newspaper Archives & Scans, Social Content by Location, Text Transcripts of Videos, Historical Satellite Imagery, Duplicate Copies of Photos, Public Government Records, Document Metadata, Voter Registration Records, Facebook Wall Posts

### Reference Books

1. Social Network Analysis: Methods and Applications by Katherine Faust and Stanley Wasserman
2. Social network analysis by John Scott
3. Models and Methods in Social Network Analysis by Stanley Wasserman, Peter J. Carrington, John Scott
4. The SAGE Handbook of Social Network Analysis by John Scott, Peter J. Carrington
5. Analyzing Social Networks by Jeffrey C. Johnson, Martin G Everett, and Stephen Borgatti
6. Social Network Analysis: Methods and Examples by Franziska B. Keller, Lu Zheng, and Song Yang
7. Social Network Analysis by David Knoke and Song Yang
8. The Development of Social Network Analysis by Linton Freeman
9. Advances in Social Network Analysis: Research in the Social and Behavioral Sciences by Joseph Galaskiewicz, Stanley Wasserman
10. Understanding Social Networks: Theories, Concepts, and Findings by Charles Kadushin