

**RAJIV GANDHI PROUDYOGIKI VISHWAVIDYALAYA, BHOPAL**

**New Scheme Based On AICTE Flexible Curricula  
Artificial Intelligence & Data Science, VII-Semester  
Open Elective-703 (D) Social Media & Web Analytics**

**Course Objective:**

1. Understand the use and applications of Social media Analytics.
2. Apply the fundamentals of social and web analytics on various social media platforms.
3. Understand the fundamentals of web metrics & Analysis.
4. Able to perform web 2.0 Analytics.

**Course Outcomes:**

After the completion of this course, the students will be able to:

1. Understand social media, web and social media analytics, and their potential impact.
2. Learn the usability metrics, web and social media metrics.
3. Identify key performance indicators for a given goal; identify data relating to the metrics and key performance indicators.
4. Perform web analytics on social media platform like- Facebook and Google.
5. Perform qualitative Analysis based on heuristic evaluation.

**Syllabus**

**UnitI: Social Media & Analytics:** Introduction to Social Media, Social Media Landscape, Social Media Analytics & its Need. SMA in Small and Large Organisations; Application of SMA in Different Social Media Platforms.

**Introduction to Web Analytics:** Definition, Process, Key Terms: Site References, Keywords and Key Phrases; Building Block Terms: Visit Characterization Terms, Content Characterization Terms, Conversion Metrics; Categories: Offsite Web, on Site Web; Web Analytics Platform, Web Analytics Evolution, Need of Web Analytics, Advantages & Limitations.

**UnitII: Network Fundamentals:** The Social Networks Perspective - Nodes, Ties and Influencers, Social Network, Web Data and Methods.

**Data Collection and Web Analytics Fundamentals:** Capturing Data: Web Logs, Web Beacons, Java Script Tags, Packet Sniffing; Outcome Data: E-commerce, Lead Generation, Brand/ Advocacy and Support; Competitive Data: Panel Based Measurement, ISP Based Measurement, Search Engine Data; Organisational Structure.

Type and Size of Data, Identifying Unique page Definition, Cookies, Link Coding Issues.

**Unit III: Web Metrics & Analytics:** Common Metrics: Hits, Page Views, Visits, Unique Page Views, Bounce, Bounce Rate & its Improvement, Average Time on Site, Real Time Report, Traffic Source Report, Custom Campaigns, Content Report, Google Analytics; Key-Performance Indicator: Need, Characteristics, Perspective and Uses.

**Graphs and Matrices-** Basic Measures for Individuals and Networks. Random Graphs & Network Evolution, Social Context: Affiliation & Identity

**Web analytics Tools:** A/B testing, Online Surveys, Web Crawling and Indexing. Natural Language Processing Techniques for Micro-Text Analysis.

**Unit IV: Facebook Analytics:** Introduction, Parameters, Demographics. Analyzing Page Audience: Reach and Engagement Analysis. Post-Performance on FB; Social Campaigns: Goals and Evaluating Outcomes, Measuring and Analysing Social Campaigns, Social Network Analysis, AdWords, Benchmarking, Categories of Traffic.

**Google Analytics:** Brief Introduction and Working, Google Website Optimizer, Implementation Technology, Limitations, Performance Concerns, Privacy Issues.

**Unit V: Qualitative Analysis:** Heuristic Evaluations: Conducting a Heuristic Evaluation, Benefits of Heuristic Evaluations; Site Visits: Conducting a Site Visit, Benefits of Site Visits; Surveys: Website Surveys, Post-Visit Surveys, Creating and Running a Survey, Benefits of Surveys.

**Web analytics 2.0:** Web Analytics 1.0 & its Limitations, Introduction to WA 2.0, Competitive Intelligence Analysis and Data Sources; Website Traffic Analysis: Traffic Trends, Site Overlap and Opportunities.

#### **Reference Books:**

1. Matthew Ganis, Avinash Kohirkar, Social Media Analytics: Techniques and Insights for Extracting Business Value Out of Social Media Pearson 2016
2. Jim Sterne, Social Media Metrics: How to Measure and Optimize Your Marketing Investment Wiley Latest edition
3. Brian Clifton, Advanced Web Metrics with Google Analytics, John Wiley & Sons; 3rd Edition edition (30 Mar 2012)
4. Ganis/Kohirka, SOCIAL MEDIA ANALYTICS Paperback – 29 September 2016 by Pearson.