

GUJARAT TECHNOLOGICAL UNIVERSITY

M.E. Semester: IV

M.E. Information Technology

Subject Code: 742301

Subject Name: **Web 2.0 & Semantic Web**

| Sr.No | Course content |
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| 1. | Introduction to Web Intelligence: Historical Perspective ,Toward an Intelligent Web ,Knowledge ,Web Mining , Building Better Web Sites Using Intelligent Technologies , Benefits of Intelligent Web |
| 2. | Information Retrieval: Introduction , Document Representation , Retrieval Models , Evaluation of Retrieval Performance , Public Domain Information Retrieval Systems |
| 3. | Semantic Web: Introduction , The Layered-Language Model , Metadata and Ontologies , Ontology Languages for the Web , Issues that May Affect the Development of Semantic Web |
| 4. | Classification and Association: Introduction ,Data Preparation , Classification , Association |
| 5. | Hello Web 2.0 World. Introducing BuzzWatch.,Charting the Landscape.,Exploring Behind the Scene.,Making BuzzWatch a Better Web Citizen.,Making BuzzWatch More Maintainable. |
| 6. | Page Presentation. Creating Clean and Simple Pages.,From HTML to XHTML., The Document Object ,odel.Cascading Style Sheets.,Tools. |
| 7. | JavaScript and Ajax. JavaScript: Understanding Lesser-Known but Crucial Features.,JavaScript,Optimizations.,Ajax. |
| 8. | Design Principles. Common Design Issues., |
| 9. | What's Next for Web 2.0? XSLT and XPath.,SVG.,XForms.,What's Next for HTML. |
| 10. | Rich Client Alternatives. From Browsers to Rich Clients.,Comparing Rich Client Frameworks. |
| 11. | HTTP and URIs.,How the Web Was Won.,Web 1.0: HTML, URLs, and TTP. The Web Model and REST. Considerations for Building an HTTP Service. What's on the Wire?,More Representation |
| 12. | XML and Its Alternatives. XML.,Alternatives to XML.Summary. |

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| 13. | Syndication. Some Syndication Basics.The Syndication Process.,Syndication Formats. |
| 14. | Microformats. The Basics of Microformats. Creating Microformat Documents. Summary. |
| 15. | Combining Protocols to Build Web Services. Clarifying Web Services.REST Services. WS-* Services. REST versus WS-*. Summary. |
| 16. | Serving XML over HTTP. How Is Serving HTML Different? Serving Static Content.Serving Dynamic Content.XQuery and XML Databases. Serving JSON. Summary. |
| 17. | Databases and Non-XML Sources. Dealing with Non-XML Sources.Converting Relational Data to XML. Converting Binary Data to XML. Summary. |
| 18. | Creating Syndication Channels. A Simple Atom Service. Running the Application. Adding E-mail Support. Summary. |
| 19. | Mashups, HTML Scraping, and Web Services. Popular Examples: Mapping Mashups. Why Use Mashups? The Business Model of Mashups. Screen Scraping. Creating Feeds. Mapping and Badges. Summary. |
| 20. | Implementing and Maintaining Your URI Space. Future-Proofing Your URIs. Managing Change in Your URI Space. Your URI Mapping Toolbox. Summary. |
| 21. | Podcasting and Serving Multimedia. The Formats Labyrinth. Protocols. Summary. |
| 22. | Introduction to Web Intelligence: Historical Perspective ,Toward an Intelligent Web ,Knowledge ,Web Mining , Building Better Web Sites Using Intelligent Technologies , Benefits of Intelligent Web |

Reference Books:

1. Professional Web 2.0 Programming by Eric van der Vlist, Danny Ayers, Erik Bruchez(Wrox Publication)
2. Building an intelligent Web: theory and practice By Rajendra Akerkar, Pawan Lingras
3. WEB CRAWLERS AND SEARCH ENGINES By Mike Thelwall