

## **Sardar Patel Institute of Technology** Bhavan's Campus, Munshi Nagar, Andheri (West), Mumbai-400058-India

(Autonomous Institute Affiliated to University of Mumbai)

| Course<br>Code | Course Name                  | Teaching<br>Scheme<br>(Hrs/week) |   |     | Credits Assigned   |   |   |       |
|----------------|------------------------------|----------------------------------|---|-----|--------------------|---|---|-------|
|                |                              | L                                | T | P   | L                  | T | P | Total |
| TEITC605       | Advanced Internet Technology | 4                                | - | -   | 4                  | - | - | 4     |
|                |                              | Examination Scheme               |   |     |                    |   |   |       |
|                |                              | ISE                              |   | MSE | ESE                |   |   |       |
|                |                              | 10                               |   | 30  | 100 (60%Weightage) |   |   |       |

| <b>Pre-requisite Course Codes</b>                                   | ITL45 | 5 (Web Programming Lab)                                 |  |  |
|---|-------|---|--|--|
| After successful completion of the course, student will be able to: |       |   |  |  |
|   | CO1   | Analyze the basic concept and working of Search Engine  |  |  |
|   | CO2   | Design SEO objectives and SEO plan prior to site        |  |  |
| Course Outcomes   |       | development   |  |  |
| Course Outcomes   | CO3   | Develop responsive web pages using HTML5 and CSS3.      |  |  |
|   | CO4   | Summarize RIA - web mash up Eco-systems using different |  |  |
|   |       | technologies like Ajax, JSON, REST and Web Services.    |  |  |

| Module | Topics  | Ref. | Hrs. |
|--------|---|------|------|
| No. 1  | Search Engine Optimization Search Engine Basics Algorithm based Ranking Systems – Determining Searcher Intent and Delivering Relevant, Fresh Content, Analyzing Ranking Factors, Using Advanced Search Techniques, Vertical Search Techniques, Country-Specific Search Engines.  Determining SEO Objective and Finding Your Site's Audience – Setting SEO Goals and Objective, Developing SEO plans Prior to Site Development -SEO for Raw traffic; E-commerce Sales; Mindshare/Branding; Direct Marketing; Reputation Management; Ideological Influence.  Getting started SEO: Defining Your Site's Information Architecture, Auditing an Existing Site to identify SEO Problems, Identifying Current Server Statistic Software and Gaining Access – Determining Top competitors, Benchmarking Current Indexing Status, Current Rankings, Benchmarking Current Traffic Source and Volumes, Conduct SEO/Website SWOT analysis.  Keyword Generation – Creating Pages – Website Structure- Creating Content-Creating Communities-building Links-Using Google Analytics-Social Media Optimization-Creating Pay-per-click Campaigns-Optimizing PPC Campaigns through Quality Score optimization - Tracking Results and Measuring Success. | 3,4  | 20   |
| 2      | Responsive web design with HTML5 and CSS3 Getting Started with HTML 5, CSS3 and Responsive Web Design.  | 2    | 16   |



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|-----------------------------|--|-------|----|
|                             | Media Queries: Supporting Differing Viewports                        |       |    |
|                             | Embracing Fluid Layout   |       |    |
|                             | HTML 5 for Responsive Design   |       |    |
|                             | CSS3: Selectors, Typography and color Modes                          |       |    |
|                             | Stunning Aesthetics with CSS3  |       |    |
|                             | CSS3 Transitions, Transformations and Animations                     |       |    |
|                             | Conquer Forms HTML5 and CSS3   |       |    |
| 3                           | RIA and Mash up  | 1,5,6 | 12 |
|                             | Characteristic of RIA – Web Mash up Eco Systems – Mash up Techniques |       |    |
|                             | :1) Mashing on the Web Server,                                       |       |    |
|                             | Rich User Interface using Ajax, Mashing with JSON.                   |       |    |
|                             | RIA: Ajax vs Traditional Approach                                    |       |    |
|                             | Technical Background:  |       |    |
|                             | 1) Java script and AJAX  |       |    |
|                             | 2) JSON Alternative to XML   |       |    |
|                             | 3) Syndication   |       |    |
|                             | 4) REST and WS * Web Services  |       |    |
| Total hours of instructions |  |       | 48 |
|                             |  |       |    |

## **References:**

- 1. Professional Web 2.0 Programming WROX press.
- 2. Ben Frain, "Responsive Web Design with HTML5 and CSS3", PACKT
- 3. Eric Enge, Stephan Spencer, Jessie Srricchiola, Rand Fishkin, "*The Art of SEO*" 2<sup>nd</sup> edition, O" Reilly Publication.
- 4. Kristopher B. Jones, "Search Engine Optimization", 3<sup>rd</sup> edition, Wiley publication.
- 5. Dana Moore, Raymond Budd, Edward Benson" *Rich Internet Application AJAX and Beyond* "WROX press, WILEY.
- 6. Srinivasan, "Web Technology", Pearson.