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| **ITY404** | **WEB SERVICES AND SERVICE ORIENTED ARCHITECTURE** | | **LTPC** | | 3 0 0 3 |
| **Pre-requisite:** | ITY310 | | | | |
| **Objectives:** | To provide fundamentals on SOA, SOAP UDDI and XML that lays foundations for the advanced studies in the area of web services | | | | |
| **Expected Outcome:** | After completion of this course the students able to perform project in the area of XML | | | | |
| **UNIT I** | **SOA: (SERVICE ORIENTED ARCHITECTURE)** | | | **No of Hrs:7** | |
| Introduction to Services - Bind, Publish, Find – Framework for SOA – Web Services (A Realization of SOA) - Web Services Architecture (Transport Services, Messaging Services, Service Description, Discovery Services, Quality of Service), Interoperability – REST (Representational State Transfer) Services. | | | | | |
| **UNIT II** | **XML BASICS** | | | **No of Hrs:8** | |
| XML Messaging, SOAP, UDDI and WSDL – Basics of XML – XML-RPC Essentials – Real life web services – Standards of Web Service Stack – Web Services Vendor Landscape, Building & Consuming XML Web Services in .NET, State Management. | | | | | |
| **UNIT III** | **SOAP: SIMPLE OBJECT ACCESS PROTOCOL** | | | **No of Hrs:8** | |
| Introduction to SOAP & XML – SOAP Specification – messages, Data Encoding, Data types – Writing SOAP Web Services – Discovering SOAP Services. | | | | | |
| **UNIT IV** | **UDDI: UNIVERSAL DESCRIPTION, DISCOVERY AND INTEGRATION** | | | **No of Hrs:7** | |
| Overview – UDDI Business Registry (UBR) – UDDI Model (UDDI Data Structures, Keys, APIs, Nodes and Registries) - UDDI Implementations. | | | | | |
| **UNIT V** | **WSDL: WEB SERVICE DESCRIPTION LANGUAGE** | | | **No of Hrs:8** | |
| WSDL Specification – Basic WSDL Example - Operations, Bindings, Service – Invocation Tools – XML Schema Data Typing, Case Studies | | | | | |
| **Text Books**  1. Sanjiva Weerawarana, Francisco Curbera, Frank Leymann, Tony Storey, Donals F. Ferguson, Web Services Platform Architecture: SOAP, WSDL, WS-Policy, WS-Addressing, WS-BPEL, WS-Reliable Messaging, and More, Prentice Hall PRT, 2005. | | | | | |
| **References:**  1. XML Web Services for ASP.NET by Bill Evjen, Wiley Publishing Inc, 2002.  2.Web Services Essentials Distributed Applications with XML-RPC, SOAP, UDDI & WSDL by Ethan Cerami, O’Reilly , First Edition, February 2002.  3. Programming Web Services with SOAP by James Snell, O’Reilly First Edition Dec 2001.  4. Web Services Theory & Practice by Anura Guruge, Digital Press, 2004.  5. Executive’s Guide to Web Services by Eric A. Marks & Mark. J. Werrell, John Wiley & Sons, 2003. | | | | | |
| **Mode of Evaluation** | | By Assignment, Seminars and Written Examinations. | | | |
| **Recommended by the Board of Studies on** | | 01/04/2011 | | | |
| **Date of Approval by the Academic Council** | | 22nd Academic Council held on 08/04/2011 | | | |