CAP588:MOBILE APPLICATION DEVELOPMENT

L:3 T:0 P:0   Credits:3

Course Outcomes: Through this course students should be able to

- describe the latest tools and techniques used for mobile application development

- analyze various languages to be used for mobile application development

- apply various mobile frameworks HTML,CSS,Java Script,JQuery,Ajax for designing mobile user interfaces

- examine the leading edge developments in mobile application development

Unit I

Introduction to Mobile Application Development : Definition of Mobile Computing, Devices, Web-Based Applications, Native Applications, History of Mobile Platforms, Internet Protocols for Mobile Apps, Content vs. Applications

Unit II

Infrastructure : Mobile and Cell Phone Technologies, Internet Terms, Transport Secure Connections, Proxies and Reverse Proxies

Unit III

HTML/CSS/DOM and Java Scripting,JQuery,Ajax : HTML, Cascading Style Sheets (CSS), Document Object Model (DOM), JavaScript, advantages and limitations of Javascript, control statements, functions, events, JQuery, Overview of Ajax

Unit IV

Designing Mobile User Interfaces and Browsers : Definition of Usability, Steps to Building a Good User Interface, Mobile User Interface Types, Mobile Application Development Design Considerations, Mobile Device User Interaction Patterns, Evaluating Mobile User Interfaces, Mobile Browsers and Browsers, Mobile Browser Evolution

Unit V

Platforms and Storage and Geolocation : URIs for Mobile Apps, Native Runtime Platforms, Cross Platform Development, HTML5, Hybrid Runtime Environments, Need for Storage, Local Storage with HTML5, Storage on the Web, Geolocation

Unit VI

iPhone/iPAD Development : Object-C Primer, Windows-based Applications and MVC, View Controllers, Provisioning, Core Data, Gestures and data

Text Books:

1. PROFESSIONAL MOBILE APPLICATION DEVELOPMENT by JEFF MCWHERTER, SCOTT GOWELL, WILEY

References:

1. MOBILE DESIGN AND DEVELOPMENT by BRIAN FLING, O'REILLY

2. PROGRAMMING THE MOBILE WEB by MAXIMILIANO FIRTMAN, O'REILLY