

Course Title	:	Wireless Technology
Course Code	:	CDS252/CDS2252
No of Credits/Semester	:	3
Mode of Tuition	:	Sectional Approach
Class Contact Hours	:	3 hours per week
Category in Major Prog.	:	Business Elective/Free Elective
Prerequisite(s)	:	Nil

Brief Course Description

This course provides an overview of wireless technology for students of all levels. It formally introduces the theoretical concept as well as applications to students. Topics covered include technical foundations of mobile devices, telephone technologies, wireless Internet and networks, wireless applications, development tools, security issues and deployments.

Aims

To introduce mobile devices, wireless Internet and related technologies to students.

Learning Outcomes

On completion of this course, students will be able to:

1. Evaluate the feasibility of various applications with wireless technology
2. Select development tools for mobile and wireless application development
3. Design and develop simple applications with mobile devices, wireless Internet and networks.

Measurement of Learning Outcomes

1. Students will design and develop applications with mobile devices and related wireless technologies.
2. Students will propose an application with wireless technology as their project. They should identify the benefits, costs, limitations, technical and operational feasibility of their project.
3. Students need to demonstrate their knowledge in various case studies.

Indicative Content

Characteristics of Internet Capable Mobile Devices

Mobile Phones, PDAs, Smart Phones, Note Book Computers and other mobile devices

Technical Foundations of Wireless Internet

3G and related Wireless Telephone Technologies, IEEE802.11 and Bluetooth Standards, Application Servers, Wireless Internet and Networks

Wireless Applications Development

Wireless Application Protocol, Wireless Markup Languages and Scripts, XHTML

Wireless Application and Management

Applications of Short Message Service, Database Integration, Location Based Service, Video and Audio Streaming, Peer-to-peer Communications, Security Issues, Future of Wireless Internet Usage

Teaching Method

The course will foster stronger ties with students through lecturing, case studies, project assignments, presentations, discussion and demonstration in laboratory. Students will be asked to demonstrate their understanding of the subject through presentation and/or assignment.

Assessment

Examination	40%
Continuous Assessment	60%
Total	100%

Required/Essential Readings

Skelton, Gordon, *Wireless Application Development*, Thomson, Canada, 2003.

Recommended/Supplementary Readings

Guthery, Scott and Crown, Mary, *Mobile Application Development with SMS and the SIM toolkit*, McGraw Hill, 2002.

Maxim, M. and Pillino, D., *Wireless Security*, McGraw Hill, 2002.