Electronic Commerce and Payment Systems

Purpose and Scope:

This course aims to expose students to current trends in electronic commerce and payment systems. It will cover a broad range of issues from B2C, B2B, and C2C electronic commerce and would introduce them to modern electronic payment systems currently in practice. It will equip students with appropriate skills to implement electronic needs for business concerns.

This course deals with the convergence of computer and communications technologies for business needs. While the way business is conducted undergoes radical change with the introduction of internet networking technologies, the basic rules for businesses haven't changed. Businesses still have to deliver quality products within budget and on time.

Born in 1990s with the Internet, the EC encompasses inter- and intra organizational segments. EC is the totality of transformations in the organizational processes and inter-organisational collaborations and exchange. Implementing EC makes organizations flexible to adapt or respond to changing needs of consumers. This course will expose students to the various mechanisms that enable EC – the technical, economic and managerial aspects.

The technology that makes possible electronic commerce - the creation of static and dynamic web pages, the underlying internetworking infrastructure and protocols that enable computer-to-computer communication would be discussed. Modern electronic payment systems, electronic money, electronic funds transfer and modernization of banking operations such as real time gross settlement facilitate EC. Moreover, EC raises many legal and public policy issues – how to contract electronically, freedom of speech and censorship, taxation for the transient transactions, cultural sensitivity on the global web, regulation, etc.

At the end of this course, the students would be conversant in
- Electronic Commerce
- Electronic Payment Systems
- Technologies to implement EC
- Electronic Trading

Contents:

Module A : Introduction to Electronic Commerce
Introduction to Electronic Commerce, Business Models, Market Research and E-Commerce, Advertising in E-Commerce, Legal and Public Policy Issues relating to E-Commerce

Module B: Technologies for Electronic Commerce
Creating Web pages, Java Servlets and JSP, XML, DTD, FSML, IFX, OFX, XBRL, Schemas, J2EE, Web Services –WSDL, SOAP

Module C: Payment Systems

Introduction to Payment Systems, Payments through the Internet – privacy issues – Card Based, net based payment systems, SET Protocol MICR, ECS, EFT, Global Payment Scenario – Inter bank / Intra bank, RTGS, History of Money/Electronic Money/Electronic Cheques, Micro payments

Module D: Mobile Commerce
Introduction to mobile commerce, Mobile payment systems, Mobile banking, Mobile micro payments and mobile macro payments

Module E: Electronic Trading
Auctions, Agents in E-Commerce, E-Trading, B2B, B2C

References
1. Efraim Turban, Jae Lee, David King, H. Michael Chang, Electronic Commerce A Managerial Perspective, Pearson Education, New Delhi, 2001.
2. Bhasker, Bharat, Electronic Commerce, Tata McGraw-Hill, New Delhi, 2003.
3. Comer, Douglas E., Internetworking with TCP/IP, Principles, Protocols and Architectures, Pearson Education, 2000
4. Martin et al., Professional XML, Wrox Publishers, 2000.
5. Mogha and Preetham, Java Web Services Programming, Wiley, 2003.
6. Sadeh, Norman, M-commerce: technologies, services, and business models, John Wiley & Sons, 2002
7. W3C resources on XML Schema, WSDL, SOAP.
8. Mohany, D., Piece M., Tiwari, H., "Electronic Payment Systems for E-Commerce"