

CIS (21-774)
Computer Information Systems
in
Industrial Engineering
 Department of Industrial Engineering
 Sharif University of Technology

Session #15



Course Description (Continued..)

- *Contents:*
- *The role of managers in Information Technology (IT)* (3 sessions)
- *Organizational Issues* (3 sessions)
- *Information Technology* (9 sessions)
- *Operational and enterprises systems* (4 sessions)
- *Exciting directions in systems* (3 sessions)
- *E-Business and E-Commerce* (3 sessions)
- *Issues for senior management* (2 sessions)

Course Description (Continued..)

▪ Contents:

- *Information Technology* (9 sessions)
 - *Fundamentals*
 - *The components of a personal computer*
 - *Software*
 - *Managerial concerns*
 - *The Contribution of Higher-Level languages*
 - *The Web Browser and Internet standards*
 - *The operating system*
 - *Database management*
 - *File elements*
 - *Enter database management software*
 - *Database in systems design*
 - *Data Warehouses, Data Marts, and Data Centers*
 - *Enterprise Content Management*

Department of Industrial Engineering, Sharif University of Technology
CIS (21774), Session #15

3

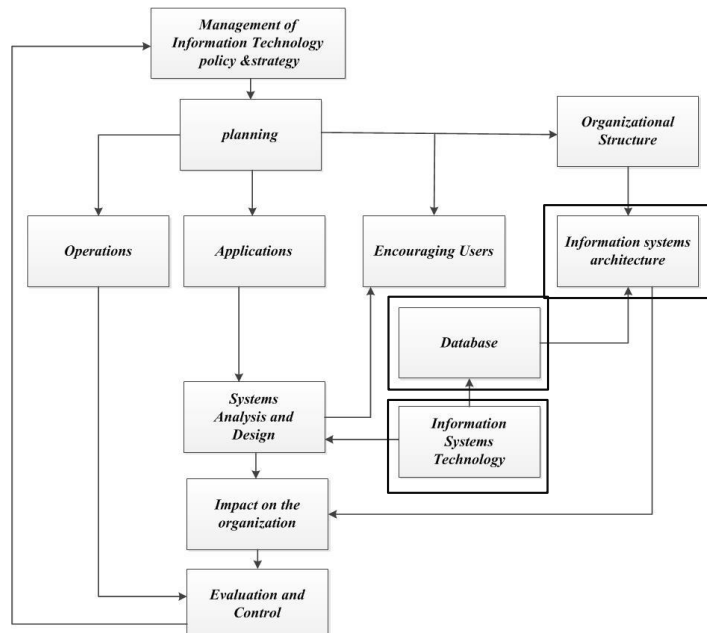
Course Description (Continued..)

▪ Contents:

- *Information Technology (Continued ...)* (9 sessions)
 - *Communications*
 - *Communications between computers*
 - *Networks*
 - *Information Technology architecture*
 - *Hardware & software architecture*
 - *System alternatives and acquisition*
 - *To buy or not: major applications*
 - *The services industry*
 - *The pros and cons of outsourcing*
 - *Enterprise software packages*
 - *Building information systems*
 - *The design task*
 - *Systems design life cycle*
 - *Data collection for analysis and design*

Department of Industrial Engineering, Sharif University of Technology
CIS (21774), Session #15

4



5

Information Technology

- *The potential of Electronic commerce*
 - *With the opening of the Internet for profit-making activities, thousands of companies set up "home pages" on the Web.*
 - *A home page is a starting place for someone seeking information.*

6

The screenshot shows the BPI.ir website interface. At the top, there's a navigation bar with links for 'صفحه اصلی', 'خدمات بانکی', 'خدمات الکترونیکی', 'اطلاع رسانی و محاسبات', 'گروه مالی پاسارگاد', 'درباره ما', and 'ارتباط با ما'. The main content area is divided into several sections:

- بانکداری همراهی:** Includes news about mobile banking services like 'بانکداری همراهی چیست؟ (دربافت قابل راهشما)', 'افتتاح حساب در بانکداری همراهی بانک پاسارگاد', and 'پیداقت های اینترنتی'.
- بهرترین تلک امروز حساب اندوخته ی فرداست:** A large banner featuring cartoon characters and a rainbow, promoting mobile phone services.
- اخبار بانک:** A list of recent news items with dates, such as 'اجرای خدمات در رسانه ها', 'تجرب و وسایل', 'شخصیها', and 'اخبار سندهاداران'.
- خدمات الکترونیک:** A row of icons representing various services: 'دکون به همراهی', 'تربیتی و بازرگانی', 'اطلاعات جغرافیایی شبکه ها', 'شماره تلفن های سرویس', 'بانکداری الکترونیک', and 'محاسبه شماره حساب بانکی ایران'.
- فهرست سندهاداران:** A list of service providers and their details.
- فهرست سندهاداران:** A list of service providers and their details.
- فهرست سندهاداران:** A list of service providers and their details.

Information Technology

- *The potential of Electronic commerce*
 - *Opportunities which the Internet offers for electronic commerce-for facilitating trading relationships among companies and between individual customers and companies:*
 - *As a universal electronic mail system. Various proprietary systems all have "gateways" to the Internet.*
 - *As a source of information on a company and its products.*
 - *As a portal that allows customers to enter orders and make inquiries.*
 - *As a way to distribute software*
 - *As a way to give customers information about their relationship with the company on the Web*
 - *As a source for electronic data interchange.*
 - *For the purchase and sale of goods and services*

Information Technology

- *The Nature of Markets*
 - *Markets serve a number of important functions:*
 - *They match buyers and sellers and facilitate the exchange of information, goods, services, and payments associated with transactions.*
 - *They provide an institutional infrastructure subject to legal and regulatory constraints, which are in place to encourage efficient and fair market operations*
 - *Electronic commerce affects all these characteristics of markets. In particular,*
 - *e-commerce tends to increase the personalization and customization of product offerings.*
 - *Technology for tracking consumers helps the merchant identify individual buyers to analyze their preferences and offer appropriate goods or services.*

Department of Industrial Engineering, Sharif University of Technology
CIS (21774), Session #15

9

Information Technology

- *The Nature of Markets*

TYPES OF ELECTRONIC COMMERCE

Electronic commerce favoring the vendor	Vendor locks in customer; e-commerce makes it easier to do business with the vendor
Customer orders from one vendor directly without comparison shopping using the Web	Vendor provides ability for customer to find enough information about the product to make a purchase and offers merchandise on the Web
Customer makes a bid	Vendor runs an auction of merchandise
Electronic commerce favoring the customer	Customer uses Web for price discovery, comparison shopping, requesting bids
Customer conducts own search of Web to compare products and prices	Company responds with its products and prices
Customer searches for multiple vendors using agents or electronic brokers	Company responds with its products and prices

Information Technology

▪ *New Business Models*

- *The Internet enables a number of new business approaches that have the potential to restructure business and commerce.*
 - *Dell Computer has used technology to create a different model for building and selling PCs*
 - *Amazon provides customers with information about books, CDs, and videos, It accepts orders and credit card payments over the Internet, and forwards these orders to a company to which it has outsourced order fulfillment.*
- *Increasingly, companies are outsourcing manufacturing and service operations to other firms because the outsourcer can do the job better and/or for less cost.*
 - *Communications over networks makes it possible for these outsourcers to look as if they are a component of your firm, giving rise to the "virtual organization."*

Information Technology

▪ *New Business Models*

- *The Internet enables a number of new business approaches that have the potential to restructure business and commerce.*
 - *For hundreds of years, these markets have relied on individuals meeting on a physical exchange floor at a central location.*
 - *NASDAQ is "National Association of Securities Dealers Automated Quotations.*
It is the second-largest stock exchange in the world by market capitalization, after the New York Stock Exchange.
 - *The NASDAQ market was one of the first securities exchanges that did not have a physical location.*
 - *Market makers use the NASDAQ system to enter their bid and ask prices.*
 - *Individual customers, however, still have to trade through a broker. There is increasing movement toward electronic, global, and continuous time markets without any physical exchanges.*

The screenshot shows the NASDAQ website interface. At the top, there is a navigation bar with links for Quotes & Research, Market Activity, News, Investing, Personal Finance, My Nasdaq, Register, and Log In. Below the navigation bar is a search bar with the placeholder text "Enter symbol, name or keyword".

The main content area is divided into several sections:

- STOCK MARKET TODAY:** A table listing major market indices and their performance.

Index	Value	Change	% Change
NASDAQ	4000.98	2.58	▲ 0.06%
NASDAQ-100 (NDX)	3456.40	-3.89	▼ 0.11%
Pre-Market (NDX)	3474.85	14.56	▲ 0.42%
After Hours (NDX)	3457.17	0.77	▲ 0.02%
DJIA	15755.36	15.93	▲ 0.10%
S&P 500	1775.32	-0.18	▼ 0.01%
Russell 2000	1107.05	3.78	▲ 0.34%
- HEADLINE:** A section with several news items, including "Krispy Kreme Expands in India - Analyst Blog", "Are Rising Interest Rates Harming REITs?", "Sport boat manufacturer Malibu Boats files for a \$116 million IPO", "Oracle, Nike to Report Earnings, AMC Expected to Make Public", and "OSI SYSTEMS SHAREHOLDER ALERT BY FORMER LOUISIANA ATTORNEY GENERAL".
- Compare CDs & Investment Rates:** A form with two sections:
 - National or local:
 - Nationally available highest yields
 - Locally available
 - Select products to compare:
 - Zip Code:

At the bottom of the page, there is a "SPONSOR CONTENT" section featuring an advertisement for "OPPENHEIMER FUNDS".

CIS (21774), Session #15

Information Technology

- **New Business Models**
 - *The Internet enables a number of new business approaches that have the potential to restructure business and commerce.*
 - *The Association for Information Systems is a small professional organization of faculty who teach information systems throughout the world.*
 - *AIS publishes two electronic journals, the Communications of AIS (<http://cais.aisnet.org>) and the Journal of AIS (<http://jais.aisnet.org>).*
 - *The association could never afford to publish even a single journal if it had to follow the traditional model of printing, binding, and mailing each issue to members,*
 - *But through the use of a Web server and passwords for members and other subscribers, it is economical to publish the journals.*

Journal of the Association for Information Systems

Home > Journals > JAIS

Editors

Editor-in-Chief: Suprateek Sarker, University of Virginia, USA
Past Editor-in-Chief: Shirley Gregor, The Australian National University, Australia
 Kalle Lyytinen, Case Western Reserve University, USA
 Phillip Ein-Dor, Tel Aviv University, Israel
 Sirikka Jarvenpaa, University of Texas, Austin, USA

The Journal of the Association for Information Systems (JAIS), the flagship journal of the Association for Information Systems, publishes the highest quality scholarship in the field of information systems. It is inclusive in topics, level and unit of analysis, theory, method and philosophical and research approach, reflecting all aspects of Information Systems globally. The Journal promotes innovative, interesting and rigorously developed conceptual and empirical contributions and encourages theory based multi- or inter-disciplinary research.

We look forward to seeing your best work submitted to JAIS. To submit an article for consideration, please use [our online review system](#).

News

- [Call For Papers - Program Management in IT](#)
- [Call For Papers - Innovation in Information Infrastructures \(III\)](#)
- [Call For Papers - The Role of Information Systems in Enabling Open Innovation](#)
- [Call For Papers - Methods, Tools, and Measurement in NeuroIS Research](#) (When submitting a paper, authors should note in their cover letter that their paper is for the NeuroIS special issue)

JAIS Best Paper Award 2012

ISSN: 1536-9323

Information Technology

- **New Business Models**
 - *Networks and the Internet provide an incredible resource for developing new business models.*
 - *Existing firms must continually reevaluate their businesses because these networks offer opportunities for radically new approaches to the way the firm operates.*

Course Description (Continued..)

▪ Contents:

- *Information Technology* (9 sessions)
 - *Fundamentals*
 - *The components of a personal computer*
 - *Software*
 - *Managerial concerns*
 - *The Contribution of Higher-Level languages*
 - *The Web Browser and Internet standards*
 - *The operating system*
 - *Database management*
 - *File elements*
 - *Enter database management software*
 - *Database in systems design*
 - *Data Warehouses, Data Marts, and Data Centers*
 - *Enterprise Content Management*

Department of Industrial Engineering, Sharif University of Technology
CIS (21774), Session #15

17

Course Description (Continued..)

▪ Contents:

- *Information Technology (Continued ...)* (9 sessions)
 - *Communications*
 - *Communications between computers*
 - *Networks*
 - *Information Technology architecture*
 - *Hardware & software architecture*
 - *System alternatives and acquisition*
 - *To buy or not: major applications*
 - *The services industry*
 - *The pros and cons of outsourcing*
 - *Enterprise software packages*
 - *Building information systems*
 - *The design task*
 - *Systems design life cycle*
 - *Data collection for analysis and design*

Department of Industrial Engineering, Sharif University of Technology
CIS (21774), Session #15

18