E - BUSINESS

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IIT Kharagpur

INTENDED AUDIENCE : Engineering (IT/Production/Industrial Engg) & Management
INDUSTRIES APPLICABLE TO : All the companies

COURSE OUTLINE :

The Internet has changed the way companies carry out their businesses. The primary objective of this course is to introduce concepts, tools and approaches to electronic business to the post- graduate and undergraduate students. Further, the subject will help the students to develop skills to manage businesses in the digital world. The course will cover following aspects of E-Business Systems.

• Part 1: Foundations of E-Business systems
• Part 2: Infrastructure
• Part 3: Functional Areas
• Part 4: Decision Support for E-Business Systems
The course provides a balance approach including concepts from technology and management.

ABOUT INSTRUCTOR :

Prof. Mamata Jenamani, My broad area of Interest is E-Business. The specific focus areas include web data analytics and supply chain optimization in the context ICT applications. My interest in web data analytics started with my doctoral work where I modeled user behavior in a website and used it for personalization. During post-doctoral research at I worked in the area of online auctions. After joining in the department of Industrial and systems engineering at IIT, Kharagpur, I aligned my research with that of the department by contributing in the area of supply chain management along with my other interest areas. In summary, my past contributions include developing theories, corresponding implementation and experimental validating wherever possible in the area of 1) Models on human behavior in ecommerce site, 2) Decision support in auction and e-procurement, 3) Decision support in supply chain.Currently, I run a number of projects in the areas such as e-business in general, auction, ICT in supply chain and urban sustainability with a focus on e-governance. The prominent and most recent of them is E-Business Center of Excellence, sponsored by Ministry of Human Resource Development. Scholars in these projects are working on the topics such as website navigation redesign, evaluating the e-governance site quality, citizen opinion mining, optimal RFID equipment positioning, Multi-attribute reverse auction design, studies on RFID adoption and urban sustainability.My future work includes developing models for web data analysis. Design of recommender System, Web Log Analysis, User Generated Content analysis and Social Network Analysis are the four major pillars in this area. Another area that interests me is about developing models for data streams such as RFID data and sensor data. Both this data sources have become extremely important in tracking and tracing of the supply chain.

COURSE PLAN :

Week 1: Introduction to E-Business

Week 2: Making Functional Areas E-Business Enabled : Value chain and supply chain, inter and intra organizational business processes, ERP

Week 3: Making Functional Areas E-Business Enabled : E-Procurement

Week 4: Making Functional Areas E-Business Enabled : E-marketing, E-Selling, E-Supply Chain Management

Week 5: Technologies for E-Business: Internet and Web based system

Week 6: Technologies for E-Business: Security and payment systems

Week 7: Technologies for E-Business: Supply chain integration technologies (EDI, RFID, Sensors, IoT, GPS, GIS)

Week 8: Technologies for E-Business: Supply chain integration technologies (Web services and cloud)

Week 9: Decision Support in E-Business: Web analytics

Week 10: Decision Support in E-Business: Customer behavior modeling

Week 11: Decision Support in E-Business: Auctions

Week 12: Decision Support in E-Business: Recommender systems