Lectures for the course: Enabling Technologies for Data Analytics (CS 60022)

First Part

Week 1 (05/01/2016) – Week 4 (29/01/2016)

Lectures 1-10

- Introduction to the Course
- Evaluation guideline
- Basics of Computer networks
- Layer 1 – Physical layer
- Class Test 1 held

Second Part

Week of 07-03-2016

Lecture 1 (08/03/2016)

- Enterprise Application Development
- Feasibility Study
- Tendering and Bidding Process
- Introduction to SDLC Model

Lecture 2 (09/03/2016)

- Quiz

Lecture 3 (11/03/2016)

- SDLC
- Need for SDLC
- Broad phases of SDLC
- Entry and exit criteria

Week of 14-03-2016

Lecture 4 (15/03/2016)

- Different phases of software development
- Classical waterfall model

Lecture 5 (16/03/2016)

- Phases of classical waterfall model
- SRS
- Design
- Coding
- Testing
- Maintenance

Lecture 6 (18/03/2016)

- Iterative waterfall model
- Prototyping model

Week of 21-03-2016

Lecture 7 (22/03/2016)

- Prototyping model (contd.)
- Evolutionary model
- Agile model introduction

Lecture 8 (23/03/2016)

- Agile models
- Extreme programming

Week of 28-03-2016

Lecture 9 (29/03/2016)

- Project Management
- Function point analysis

Lecture 10 (30/03/2016)

- Class test 2 held

Lecture 11 (31/03/2016)

- Mid-sem scripts shown and feedback given
- Map reduce - Introduction

Lecture 12 (01/04/2016)

- Function point analysis (contd.)
- Metrics
- Time and material basis projects

Week of 04-04-2016

Lecture 13 (05/04/2016)

- Review effectiveness
- Defect Leakage
- Productivity
- LCL and UCL
- Causal analysis
- Quantitative Project management

Lecture 14 (06/04/2016)

- UML
- Use case diagram

Lecture 15 (07/04/2016)

- Introduction to computer security
- Security models
- Quiz 2 held

Week of 11-04-2016

Lecture 16 (12/04/2016)

- Role based access control
- Intrusion detection and prevention

Lecture 17 (13/04/2016)

- Exploiting vulnerabilities for intrusion
- Anomaly based intrusion detection system design
- Privacy
- K-anonymity
- Other measures of privacy

Week of 18-04-2016

Lecture 18 (19/04/2016)

- Course summary