

# **Ph.D. Qualifying Reading Lists (Revised 4/12/14)**

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## **CS 6352 – Performance of Computer Systems and Networks**

### **List of Topics:**

- Properties of Poisson streams of customer arrivals.
- Analysis and performance figures of the M/M/1 queue.
- Continuous parameter Markov chains.
- Single state dependent (continuous time) Markovian queueing systems.
- Various applications of such state dependent cases in computer systems and data communication networks.
- Generalized Little's result for multiple non-FIFO queues.
- Development and analysis of Markov chains for simple priority queues.
- Developments of Pollaczek-Khinchin mean value formula for the M/G/1 queue.
- Applications.
- Development of discrete parameter Markov chains for discrete time queues.
- Analysis of discrete parameter Markov chains.
- Evaluation of performance figures.
- Applications of discrete time queues in computer systems and data networks (such as, for examples, cross-bar and simple multistage switches).
- Product form solutions for networks of continuous time open and closed
- Markovian queues (unlimited buffer, state independent service rates).
- Convolution algorithm and Mean Value Analysis techniques for such closed queueing networks.

### **Type of questions:**

Questions will be combinations of theoretical development, analysis of given systems, development of appropriate models and follow up analysis starting from verbal descriptions of physical systems. In most cases, students should attempt to solve problems from fundamental principles rather than trying to remember and apply formulae for various special cases.

A set of helpful formulae, etc. (such as the Pollaczek-Khinchin mean value formula and the MVA algorithm) will be supplied along with the question paper.

The following list of references include the commonly used text book, other reference books on queues, and a sample of books on Probability Theory. Students are responsible for correcting errors in the reference material.

### **Text Book:**

T. G. Robertazzi, Computer Networks and Systems: Queueing Theory and Performance Evaluation. Springer, 2000.

### **Other References:**

D. Gross and C. M. Harris, Fundamentals of Queueing Theory. Wiley, 1997

L. Kleinrock, Queueing Systems, Volume 1, Theory. Wiley, 1975

J. J. Higgins and S. Keller-McNulty, Concepts in Probability and Stochastic Modeling. Duxbury Press, 1995

K.S. Trivedi, Probability and Statistics with reliability, Queueing, and Computer Science Applications. First or Second Edition (2001, Wiley)

C. M. Grinstead and J. L. Snell, Introduction to Probability. American Mathematical Society, 1997

# Ph.D. Qualifying Reading Lists (Revised 4/12/14)

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## CS 6353 – Compiler Construction

List of Topics:

- Basic automata theory
  - Classification of grammars and languages.
- Lexical analysis
  - Regular expressions, Regular languages.
- Syntax analysis
  - Context free grammars.
  - Top-down parsing techniques: Recursive descent, LL(1).
  - Bottom-up parsing techniques: LR parsing.
- Semantic analysis
  - Synthesized attributes and inherited attributes.
  - Syntax-directed translation.
  - Type checking.
- Code generation
  - Runtime storage management.
  - Backpatching, peephole optimization.
  - Register Allocation: Graph coloring.
- Optimizing techniques:
  - Concepts of basic blocks, loops.
  - Data flow analysis: Framework.

### Textbook:

"Compilers: principles, techniques and tools".

A. Aho, R. Sethi and J. Ullman, Addison-Wesley Publishing Company.

Chapters 1-10.

# **Ph.D. Qualifying Reading Lists (Revised 4/12/14)**

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## **CS 6360 – Database Design**

Textbook: "Fundamentals of database systems"  
by Elmasri and Navathe:

Topics

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Database System Concepts and Architecture (Data models,  
Schemas, Instances, Database architecture, classification)  
Entity-

Relationship (ER) model, ER diagrams

The Enhanced Entity-Relationship (EER) model, EER Diagrams

Relational Data Model, Relational algebra, SQL

Relational Database Design by ER/EER-to-Relational Mapping

Database Design Theory and Normalization (Basics of  
Functional Dependencies and Normalization for Relational  
Databases; Algorithms for Relational Database Schema  
design)

Query processing and optimization

Transaction processing concepts and theory

Concurrency Control Techniques

Database Recovery Techniques

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# **Ph.D. Qualifying Reading Lists (Revised 4/12/14)**

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## **CS 6361 - Requirements Engineering**

Topics:

Requirements Engineering: Introduction

Why RE? - error propagation in software lifecycle, cost and size of requirements errors, aims and scope

What is RE? - What are requirements? Role of requirements and requirements engineers

How to do RE? - types of errors, formal vs. semi-formal vs. informal

Requirements Engineering Processes

Why process? A framework for RE process: Elicitation, specification, validation, RE process and software lifecycle models

Requirements Elicitation: Part I

Why is it difficult? What to elicit? How to elicit?

Requirements Elicitation: Part II

Advanced goal-directed strategy, knowledge acquisition, data/information elicitation techniques

Scenario Analysis

Use cases, episodes, scripts, cycle of natural inquiry, abstract vs. concrete scenario, scenario space

Requirements Analysis, Modelling and Specification: Review

Conceptual modeling perspective of basic RE process, carving the product space

Object-Oriented Modeling:

Intellectual origins, conceptual modeling, UML overview

Enterprise Requirements & Functional Requirements: Structural Requirements

Agent-oriented approach to enterprise modeling, ERD, i\*, JSD, SADT, IDEF

Functional Requirements: A Formal OO-RML/Telos epistemological primitives, ontological primitives, interval calculus, axiomatization of OO

Functional Requirements: Behavioral Requirements

Decision-oriented behavioral models, State-oriented Behavioral models (Finite State Machines, StateCharts, PetriNets), Function-oriented behavioral models.

Non-Functional Requirements

Types of NFRs, classification schemes, Process-oriented approach, Product-oriented approach, Portability, Reliability, Efficiency, Usability, Security

Main reference: Lecture Notes at

<http://www.utdallas.edu/~chung/RE/contents.html>

Additional References:

Articles:

Axel van Lamsweerde,

"Requirements engineering in the year 00: a research perspective", Proc., Int. Conf. on Software Engineering (ICSE) 2000, pp. 5-19.

Axel Van Lamsweerde, "Goal-Oriented Requirements Engineering: A Guided Tour",

Proc., Int. Symposium on Requirements Engineering (RE'01), pp.249-261.

Sol Greenspan, John Mylopoulos, Alex Borgida, "On Formal Requirements Modeling

Languages: RML Revisited", Proc., Int. Conf. on Software Engineering (ICSE) 1994, pp. 135-147.

Mike Wooldridge and Nick Jennings, "Software Engineering with Agents: Pitfalls

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and Pratfalls," IEEE Internet Computing, 3(3):20-27, May/June 1999.

A. Tveit, "A Survey of Agent-Oriented Software Engineering",  
Proc. of the First NTNU CSGS Conference, May, 2001  
URL = <http://www.jfipa.org/publications/AgentOrientedSoftwareEngineering/>

Anton, A.I.; Potts, C. "The use of goals to surface requirements for evolving systems", Proc., Int. Conf. on Software Engineering (ICSE) 1998,  
pp. 157 -166

J.M. Wing, "A Specifier's Introduction to Formal Methods," IEEE Computer, 23(9):8-24, September 1990.

J.A. Hall, "Seven Myths of Formal Methods," IEEE Software, 7(5):11-19, September 1990.

J.P. Bowen and M.G. Hinchey, "Seven More Myths of Formal Methods,"  
IEEE Software, 12(4):34-41, July 1995.

Books:  
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A. M. Davis, Software Requirements: Objects, Functions, & States  
Prentice Hall: Englewood Cliffs, 1993.

P. Loucopoulos and V. Karakostas, System Requirements Engineering,  
McGraw-Hill, 1995.

M. Jackson and T. DeMarco, Software Requirements and Specifications,  
Addison-Wesley, 1995.

R. H. Thayer and M. Dortman, Software Requirements Engineering: 2nd edition,  
IEEE Computer Society Press, 1998.

I. Sommerville and P. Sawyer, Requirements Engineering - A Good Practice  
Guide, Wiley, 1997.

D. Gause and G. Weinberg, Exploring Requirements, Dorset House, 1989.

J. Martin and J. Odell, Object-Oriented Methods: A Foundation, Prentice-Hall,  
1995.

J. Rumbaugh, I. Jacobson and G. Booch, The Unified Modeling Language  
Reference  
Manual, Addison-Wesley, 1998.

L. Chung, B. Nixon, E. Yu and J. Mylopoulos, Non-Functional Requirements in  
Software Engineering, Kluwer Academic Publishing, 2000.

# **Ph.D. Qualifying Reading Lists (Revised 4/12/14)**

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## CS 6362 – Software Architecture and Design

Topics:

Introduction to Software Architecture Classical

Module Interconnection

Languages Abstract DataTypes and Objects Module

Decomposition Issues

Data Flow

Repositories Events

Process Control

JavaBeans

Client Server

Middleware: CORBA, OLE/DCOM, J2EE/J2ME, .Net Patterns

Main reference: Lecture Notes at <http://www.utdallas.edu/~chung/SA/contents.html>

### **Articles:**

- Mary Shaw, Paul Clements, "The Golden Age of Software Architecture," IEEE Software, Vol.23, no. 2, pp. 31-39, Mar./Apr.2006
- Paul Clements, Mary Shaw, "The Golden Age of Software Architecture Revisited," IEEE Software, vol. 26, no. 4, pp. 70-72, July/August, 2009.
- Hofmeister, C., Kruchten, P., Nord, R., Obbink, H., Ran, A., & America, P. (2207). A General Model of Software Architecture Design derived from Five Industrial Approaches, Journal of Systems & Software, 80(1), 106-126.
- Hassan Gomma, "Advances in Software Design Methods for Concurrent, Real-Time and Distributed Application," in proceedings The Third International Conference on Software Engineering Advances, 2008, pp. 451-456.
- Kendall Scott, The Unified Process Explained. ISBN 0-201-74204-7, 2002, best practices in Architecture and Design.
- Advanced Design Patterns. Re-use  
M-A. Laverdiere; A. Mourad; A. Hanna; M. Debbabi; "Security Design Patterns: Survey and Evaluation", in Canadian Conference on Electrical and Computer Engineering, May 2006, pp. 1605 – 1608  
David Kalinsky, "Design Patterns for High Availability", March 13, 2003  
URL: <http://www.eetimes.com/story/OEG20020729S0030>

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- Ashraf Armoush, Falk Salewski, Stefan Kowaleski, "Design Pattern Representation for Safety-Critical Embedded Systems", JSEA
- Glen B. Alleman, "Exception Handling in CORBA Environments, The Late Introduction of Distributed Exception Handling in JAVA TM, CORBA-Based COTS Application Domains", 2000.

### Representation

- Nenad Medvidovic. Modeling software architectures in unified modeling language. ACM Transactions on Software Engineering and Methodology, 11(1):2-57, January 2002.
- Nenad Medvidovic and Richard N. Taylor. A classification and comparison framework for software architecture description language. IEEE Transactions on Software Engineering, 26(1):70-93, January 2000.
- P. Clements, Comparing the SEI's Views and Beyond Approach for Documenting Software Architectures' with ANSI-IEEE 1471-2000
- Grady Booch, James Rumbaugh, and Ivar Jacobson, Unified Modeling Language User Guide, (2nd Edition), Advanced UML topics, Sections 3, 5, and 6.
- Mugurel T. Ionita, Henk Obbink and Dieter Hammer, Scenario-Based Architecture Evaluation Methods: An overview, International Conference on Software Engineering 2002 (ICSE'02), Orlando, Florida.
- Hans-Peter Hoffmann, UML 2.0-Based Systems Engineering Using a Model-Driven Development Approach, 2005, available at <http://www.stsc.hill.af.mil/crosstalk/2005/11/0511Hoffman.pdf>
- Michel, M.M. Gala-Edeen, G.H., "Detecting inconsistencies between software architecture views", in proceedings International Conference on Computer Engineering & Systems, 2009. ICCES 2009. pp. 429-434
- Pengcheng Zhang, Henry Muccini and Bixin Li, "A classification and comparison of model checking software architecture techniques", 2009.
- Jeannette M. Wing and Mandanna Vaziri-Farahani, "A case study in model checking software systems", Science of Computer Programming 28 (1997) pp. 273-299.

### Books:

- 1) Mary Shaw and David Garlan, Software Architecture: Perspectives on an Emerging Discipline, Prentice Hall, 1996.
- 2) L. Bass, P. Clements & R. Kazman, Software Architecture in Practice, Addison Wesley, 1998.
- 3) A. W. Brown (Editor), Component-Based Software Engineering, IEEE Computer Society, 1996.
- 4) Eric Gamma, Richard Helm, Ralph Johnson and John Vlissides, Design Patterns: Elements of Reusable Object-Oriented Software, Eric Gamma, Richard Helm, Ralph Johnson and John Vlissides, Addison-Wesley, 1994.
- 5) Wolfgang Pree, Design Patterns for Object-Oriented Software Development, Addison-Wesley Longman, 1995.

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- 6) I. Singh, B. Stearns, M. Johnson, The Enterprise Team, Designing Enterprise Applications with the J2EE Platform, 2/E, Addison Wesley & Benjamin Cummings, 2002.
- 7) Randy Otte, Paul Patrick and Mark Roy, Understanding CORBA: The Common Object Request Broker Architecture, Prentice Hall, 1996.
- 8) Robert Orfali, Dan Harkey and Jeri Edwards, The Essential Client/Server Architecture: Survivor's Guide, John Wiley & Sons, 1995.



## **Ph.D. Qualifying Reading Lists (Revised 4/12/14)**

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### **CS 6363 – Design and Analysis of Computer Algorithms**

The exam will test knowledge of:

1. major techniques for algorithm design (as listed below);
2. methods to prove algorithm correctness and to analyze its running time;
3. Basic knowledge of NP-Completeness.

NOTE: You should know more than just the algorithms; you are responsible for proving correctness, including all necessary supporting lemmas, and are responsible for proving the correctness of any statements about the asymptotic

running times. In addition, you should know the stated subject matter well enough to enable you to provide solutions for closely related questions.

Most topics (and knowledge) required are in the CS6363 textbook:

Introduction to algorithms, Second edition, Cormen, Leiserson, Rivest and Stein.

General topics:

Introduction, recurrences and Master Theorem (Theorem 4.1, the proof is not required)

Divide-and-Conquer algorithms

Linear time median selection algorithm (Section 9.3, pp. 189-192)

Closest pair of points in the plane (Section 33.4, pp. 957-961)

Permutation networks (Problem 27-3, page 722)

Sorting Networks (Chapter 27)

Multiplication of large integers (Section 7.1, page 219-223, and Problems 7.2, 7.3, page 250, of "Fundamentals of Algorithms, by Brassard and Bratley, Prentice Hall Publ.)

Note: students should be able to design divide-and-conquer algorithms for various problems beside those mentioned above

Dynamic Programming

Matrix Chain Order (Section 15.2, pp. 331-338)

Longest Common Subsequence Algorithm (Section 15.4, pp. 350-355.)

All pairs shortest paths (Section 25.2, pp. 629-634)

0/1-knapsack problem (Problem 16.2-2, page 384)

Greedy Method

Huffman's code algorithm (Section 16.3, pp. 385-392)

Minimum spanning tree (Chapter 23)

Single Source Shortest Paths (e.g. Dijkstra's algorithm) (Chapter 24, up to page 601)

Maximum flow (Chapter 26, up to page 668)

Graph algorithms (Chapter 22)

NP-Completeness (Chapter 34, specifically 3SAT, VERTEX COVER, INDEPENDENT SET,

CLIQUE, 3COLOR, HAMILTON CIRCUIT (both directed and undirected), as well as definitions and properties of polynomial time reducibilities.)

Linear programming: (Chapter 29, pp. 770-789 and pp. 804-807.)

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## CS 6364 – Artificial Intelligence

### Text:

S. Russell & P. Norvig. *Artificial Intelligence, A Modern Approach*, Second Edition 2002.

### Problem solving by search:

#### Uninformed (Blind) Search and Heuristic (Informed) Search

Problem formulation; Uninformed search strategies: Depth-First Search, Breadth-First Search, Uniform-Cost Search, Iterative-Deepening. Informed Search strategies: Greedy Best-First Search, A\*, IDA\*. Heuristic Functions: heuristic domination, inventing admissible heuristics.

#### Adversary Search (Game Trees)

How to design computer programs that play games intelligently. The MIN/MAX and the ALPHA/BETA-Pruning algorithms, their complexity and efficient implementations.

### Knowledge Representation

Propositional logic. Syntax, semantics and inference in propositional logic as well as reasoning patterns. First Order Logic: syntax and semantics. Resolution in FOL.

### Probabilistic reasoning

Modeling uncertainties with probabilities. Inference using Full Joint Distributions. Bayes' Rule. Naïve-Bayesian Reasoning.

### Bayesian Networks / Belief Networks

Representation of knowledge in uncertain domains. Semantics of Bayesian Networks. Exact inference in Bayesian Networks: inference by enumeration; PolyTree Bayesian networks..

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### **CS 6367 – Software Testing, Validation, and Verification**

Textbook: Software Testing by Paul Jorgensen, 2<sup>nd</sup> Edition, CRC.

Part 1: Requirements-Based Testing, Inspections

Introduction, Approaches to Reliability, Requirements-based Testing strategies (Equivalence Partitioning, Boundary value Analysis, Cause-Effect graphing), Valid and Reliable testing strategies and the Fundamental Theorem of testing, the Partition Testing Model, Random/Statistical testing. Software Inspections and related approaches.

Textbook: Ch 1, 3, 5-8

Myers: The Art of Software Testing, Wiley.

Goodenough + Gerhart, "Toward a Theory of Test Data Selection", IEEE Trans. on Software Engineering, June 1975.

Hamlet+Taylor, "Partition Testing Does Not Inspire Confidence", IEEE TSE, Dec. 1990.

Wheeler, Brykczynski, Meeson, "Software Inspection: An Industry Best Practice", IEEE Computer Society Press.

Part 2: Program Proofs

Predicate calculus, validity, theoretical limitations, deduction systems, the Resolution method. Verification of Programs (Flowchart Programs, Inductive Assertions, Termination, Programs with Arrays, extensions).

Manna: Mathematical Theory of Computation, McGraw-Hill.

Chapter 2: Predicate Calculus

Chapter 3: Verification of Programs

Part 3: Structural, Fault-Based Testing Strategies

Structural Testing, Statement, Branch, Predicate, Base-Path, Path Testing, Variations of Path Testing, Data-Flow Testing, Domain Testing, Mutation Analysis, other methods. Evaluations of testing strategies, inclusion, test set size. Integration testing; Object-oriented Testing

Textbook: Ch. 9-11, 13, 16-20

DeMillo, Lipton, Sayward, "Hints on Test Data Selection: Help for the Practicing Programmer", IEEE Computer, April 1978.

Musa, "Operational Profiles in Software Reliability Engineering", IEEE Software, March 1993.

Ntafos, "A Comparison of Some Structural Testing Strategies", IEEE TSE, June 1988.

White, Cohen, "A domain strategy for Computer Program Testing", IEEE-TSE, May 1980.

Part 4: Reliability Estimation

Failure rate estimation from test outcomes, error-seeding, reliability growth models.

Notes on Reserve in Library

References:

Lyu: Handbook of Software Reliability Engineering, IEEE Computer Society Press, Mc Graw Hill.

Musa: Software Reliability Engineering, McGraw-Hill.

## **Ph.D. Qualifying Reading Lists (Revised 4/12/14)**

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### **CS 6371 – Advanced Programming Languages**

Topics:

Programming with Functions; Lambda Calculus and ML programming;  
Logic programming; Unification and backtracking; Search tree; Programming in Prolog;

Abstract Syntax; Definite Clause Grammars; Grammar Classifications;  
Sets, functions, domains; Domain Theory: Primitive and Compound Domains;  
Denotational Definition of Programming Languages; Semantics of Imperative Languages; Recursive Functions; Monotonicity, Continuity, and Fix-points;

Introduction to semantics of Logic Programming Languages,  
Verification of Programs, Partial Evaluation; Interpretation and Automatic Compilation;

Axiomatic Semantics: Hoare's Axiomatization of partial correctness

References:

Denotational Semantics by D.A. Schmidt.

Elements of ML Programming, Jeffrey D. Ullman, ML97 Edition

The Art of Prolog, L. Sterling and E. Shapiro. MIT Press, 1997.

Also see the following web page for more details:

<http://www.utdallas.edu/~gupta/courses/apl/>

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### CS 6375 - Machine Learning (Syllabus updated Oct 2006)

**Topics:** Decision Tree Learning, Artificial Neural Networks, Evaluating Hypotheses, Bayesian Learning, Computational Learning Theory, Instance-Based Learning, Markov Decision Processes, Reinforcement Learning, Support Vector Machines, Bagging, Boosting, Hidden Markov Models, and Clustering.

**References:**

Artificial Intelligence (second edition) by Stuart Russell and Peter Norvig, Prentice Hall, 2003.

Machine Learning by Tom Mitchell, McGraw Hill, 1997.

## **Ph.D. Qualifying Reading Lists (Revised 4/12/14)**

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**CS 6378 - Advanced Operating Systems (Material in red with strikethrough is no longer in the syllabus)**

Clocks and Event Ordering

1. Lamport - Time, Clocks and the Ordering of Events in a Distributed System (1978)
2. Fidge - Logical Time in Distributed Computing Systems (1991)

Causal Message Ordering

3. Raynal, Schiper & Toueg - The causal ordering abstraction and a simple way to implement it (1991)

Consistent Global Snapshots

4. Chandy & Lamport - Distributed Snapshots: Determining Global States of Distributed Systems (1985)

Termination Detection

5. Huang - Detecting Termination of Distributed Computations by External Agents (1989)

Distributed Mutual Exclusion

6. Ricart & Agrawala - An Optimal Algorithm for Mutual Exclusion in Computer Networks (1981)
7. Maekawa - A sqrtN Algorithm for Mutual Exclusion in Decentralized Systems (1985)
8. Raymond - A Tree-Based Algorithm for Distributed Mutual Exclusion (1989)

Clock Synchronization

9. Cristian - Probabilistic Clock Synchronization (1989)
10. Gusella & Zatti - The Accuracy of the Clock Synchronization Achieved by TEMPO in Berkeley UNIX 4.3BSD (1989)
11. Mills - Improved Algorithms for Synchronizing Computer Network Clocks (1995)

Agreement Protocols

12. Fischer - The Consensus Problem in Unreliable Distributed Systems (1983)

Fault Tolerance and Data Consistency

13. Koo & Toueg - Checkpointing and Rollback-Recovery for Distributed Systems (1987)

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14. Bernstein, Hadzilacos & Goodman - Distributed Recovery (1987)
15. Jajodia & Mutchler - A Hybrid Replica Control Algorithm Combining Static and Dynamic Voting (1989)

### File System

16. Ghemawat, Gobioff & Leung - The Google File System (2003)
17. DeCandia et al. - Dynamo: Amazon's highly available key-value store (2007)

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### **CS 6385 - Algorithmic Aspects of Telecommunication Networks**

Chapters 2, 3, 5, 6, 7, 10 from

Robert S. Cahn, "Wide Area Network Design", Morgan Kaufmann, 1998.

AND

Chapters 1-4 from

Thomas G. Robertazzi, "Planning Telecommunication Networks",

IEEE Press, 1999.



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## CS 6390 – Advanced Computer Networks

### General topics:

- (1) Transport and Routing (including multicasting) protocols,
- (2) Quality of service and Weighted Fair Queuing
- (3) Mobile IP/Wireless Data,
- (4) IPv6,
- (5) MPLS,
- (6) Peer-to-peer applications.
- (7) Voice over IP

### Reading List

1. Reference book (**Computer Networks** by Peterson and Davie).
2. **Design Philosophy of the DARPA Internet Protocols**, D. Clark, Proc. of ACM SIGCOMM '88.
3. **An Architecture for Wide-Area Multicast Routing**, S. Deering, D. Estrin, D. Farinacci, V. Jacobson, C.-G. Liu, and L. Wei, Proc. of ACM SIGCOMM'94.
4. **Multicast Routing in Datagram Internetworks and Extended LANS**, S. Deering and D. Cheriton, ACM Transactions on Computer Systems, Vol 8 No 2, May 1990, pp. 85-110.
5. **The Stable Paths Problem and Interdomain Routing**, T. Griffin, B. Shepherd, and G. Wilfong, IEEE/ACM Transactions on Networking, Vol 10 No 2, April 2002.
6. **Mobile IP**, C. Perkins, IEEE Communications Magazine, Vol 35, No. 5, May 1997.
7. **Mobility Support in IPV6**, C. Perkins, D. Johnson, ACM Mobicom 1996.
8. **IP Multicast Channels: EXPRESS Support for Large-scale Single-source Applications**, H. Holbrook and D. Cheriton, SIGCOM 1999.
9. **Congestion Avoidance and Control**, V. Jacobson and M. Karels, Proc. ACM SIGCOMM '88.
10. **Random Early Detection Gateways for Congestion Avoidance**, S. Floyd and V. Jacobson, IEEE/ACM Transactions on Networking, Vol. 1, No. 4, pp. 397-413, August 1993.
11. **Equation-Based Congestion Control for Unicast Applications**, S. Floyd, M. Handley, J. Padhye, and J. Widmer, *Proc. of ACM SIGCOMM '00*, Aug. 2000.
12. **Chord: A Scalable Peer-to-peer Lookup Protocol for Internet Applications**, I Stoica, R Morris, D Liben-Nowell, D R. Karger, M. F Kaashoek, F Dabek, H Balakrishnan, ACM SIGCOMM 2001.
13. **SOS: Secure Overlay Services**, A. Keromytis, V. Misra, and D. Rubenstein (Columbia University), ACM SIGCOMM, Pittsburgh, PA, USA, August 2002.
14. **SIFF: A Stateless Internet Flow Filter to Mitigate DDoS Flooding Attacks**, Abraham Yaar, Adrian Perrig, Dawn Xiaodong Song, IEEE Symposium on Security and Privacy 2004

NOTE: You can find most of these papers at:

<http://www.utdallas.edu/%7Eksarac/courses/Papers/>

The paper may also be found in the IEEE/IEE Xplore database and in the ACM Digital library, available from UTD's library webpage <http://www.utdallas.edu/library/collections/journals.htm>