ACM Classification Codes

The <u>ACM Computing Classification System</u> is a subject classification system for computer science devised by the <u>Association for Computing Machinery</u>. The system is comparable to the <u>Mathematics Subject Classification</u> in scope, aims and structure, being used by the various ACM journals to organize subjects by area. (Taken from <u>Wikipedia</u>.)

- A.: General Literature
 - A.0: GENERAL
 - A.1: INTRODUCTORY AND SURVEY
 - A.2: REFERENCE (e.g., dictionaries, encyclopedias, glossaries)
 - A.m: MISCELLANEOUS
- B.: Hardware
 - B.0: GENERAL
 - B.1: CONTROL STRUCTURES AND MICROPROGRAMMING
 - B.1.0: General
 - <u>B.1.1</u>: Control Design Styles
 - <u>B.1.2</u>: Control Structure Performance Analysis and Design Aids
 - <u>B.1.3</u>: Control Structure Reliability, Testing, and Fault-Tolerance
 - <u>B.1.4</u>: Microprogram Design Aids
 - <u>B.1.5</u>: Microcode Applications
 - <u>B.1.m</u>: Miscellaneous
 - B.2: ARITHMETIC AND LOGIC STRUCTURES
 - B.2.0: General
 - <u>B.2.1</u>: Design Styles
 - <u>B.2.2</u>: Performance Analysis and Design Aids
 - B.2.3: Reliability, Testing, and Fault-Tolerance
 - B.2.4: High-Speed Arithmetic
 - B.2.m: Miscellaneous
 - B.3: MEMORY STRUCTURES
 - <u>B.3.0</u>: General
 - <u>B.3.1</u>: Semiconductor Memories
 - <u>B.3.2</u>: Design Styles
 - <u>B.3.3</u>: Performance Analysis and Design Aids
 - <u>B.3.4</u>: Reliability, Testing, and Fault-Tolerance
 - B.3.m: Miscellaneous
 - B.4: INPUT/OUTPUT AND DATA COMMUNICATIONS
 - <u>B.4.0</u>: General
 - B.4.1: Data Communications Devices
 - <u>B.4.2</u>: Input/Output Devices
 - <u>B.4.3</u>: Interconnections (Subsystems)
 - <u>B.4.4</u>: Performance Analysis and Design Aids
 - <u>B.4.5</u>: Reliability, Testing, and Fault-Tolerance
 - B.4.m: Miscellaneous
 - B.5: REGISTER-TRANSFER-LEVEL IMPLEMENTATION
 - B.5.0: General

- <u>B.5.1</u>: Design
- B.5.2: Design Aids
- <u>B.5.3</u>: Reliability and Testing
- B.5.m: Miscellaneous
- B.6: LOGIC DESIGN
 - B.6.0: General
 - B.6.1: Design Styles
 - <u>B.6.2</u>: Reliability and Testing
 - <u>B.6.3</u>: Design Aids
 - B.6.m: Miscellaneous
- B.7: INTEGRATED CIRCUITS
 - B.7.0: General
 - <u>B.7.1</u>: Types and Design Styles
 - B.7.2: Design Aids
 - <u>B.7.3</u>: Reliability and Testing
 - B.7.m: Miscellaneous
- B.8: PERFORMANCE AND RELIABILITY
 - <u>B.8.0</u>: General
 - <u>B.8.1</u>: Reliability, Testing, and Fault-Tolerance
 - <u>B.8.2</u>: Performance Analysis and Design Aids
 - B.8.m: Miscellaneous
- B.m: MISCELLANEOUS
- <u>C.</u>: Computer Systems Organization
 - <u>C.0</u>: GENERAL
 - C.1: PROCESSOR ARCHITECTURES
 - <u>C.1.0</u>: General
 - <u>C.1.1</u>: Single Data Stream Architectures
 - <u>C.1.2</u>: Multiple Data Stream Architectures (Multiprocessors)
 - <u>C.1.3</u>: Other Architecture Styles
 - C.1.4: Parallel Architectures
 - <u>C.1.m</u>: Miscellaneous
 - C.2: COMPUTER-COMMUNICATION NETWORKS
 - <u>C.2.0</u>: General
 - C.2.1: Network Architecture and Design
 - C.2.2: Network Protocols
 - C.2.3: Network Operations
 - <u>C.2.4</u>: Distributed Systems
 - <u>C.2.5</u>: Local and Wide-Area Networks
 - <u>C.2.6</u>: Internetworking
 - <u>C.2.m</u>: Miscellaneous
 - C.3: SPECIAL-PURPOSE AND APPLICATION-BASED SYSTEMS
 - C.4: PERFORMANCE OF SYSTEMS
 - C.5: COMPUTER SYSTEM IMPLEMENTATION
 - <u>C.5.0</u>: General
 - <u>C.5.1</u>: Large and Medium (``Mainframe") Computers
 - <u>C.5.2</u>: Minicomputers

- <u>C.5.3</u>: Microcomputers
- C.5.4: VLSI Systems
- <u>C.5.5</u>: Servers
- C.5.m: Miscellaneous
- C.m: MISCELLANEOUS
- <u>D.</u>: Software
 - D.0: GENERAL
 - <u>D.1</u>: PROGRAMMING TECHNIQUES
 - <u>D.1.0</u>: General
 - <u>D.1.1</u>: Applicative (Functional) Programming
 - <u>D.1.2</u>: Automatic Programming
 - <u>D.1.3</u>: Concurrent Programming
 - <u>D.1.4</u>: Sequential Programming
 - <u>D.1.5</u>: Object-oriented Programming
 - <u>D.1.6</u>: Logic Programming
 - <u>D.1.7</u>: Visual Programming
 - D.1.m: Miscellaneous
 - D.2: SOFTWARE ENGINEERING
 - D.2.0: General
 - <u>D.2.1</u>: Requirements/Specifications
 - <u>D.2.2</u>: Design Tools and Techniques
 - <u>D.2.3</u>: Coding Tools and Techniques
 - <u>D.2.4</u>: Software/Program Verification
 - <u>D.2.5</u>: Testing and Debugging
 - <u>D.2.6</u>: Programming Environments
 - <u>D.2.7</u>: Distribution, Maintenance, and Enhancement
 - D.2.8: Metrics
 - <u>D.2.9</u>: Management
 - <u>D.2.10</u>: Design
 - <u>D.2.11</u>: Software Architectures
 - <u>D.2.12</u>: Interoperability
 - D.2.13: Reusable Software
 - <u>D.2.m</u>: Miscellaneous
 - D.3: PROGRAMMING LANGUAGES
 - D.3.0: General
 - D.3.1: Formal Definitions and Theory
 - <u>D.3.2</u>: Language Classifications
 - <u>D.3.3</u>: Language Constructs and Features
 - <u>D.3.4</u>: Processors
 - D.3.m: Miscellaneous
 - D.4: OPERATING SYSTEMS
 - <u>D.4.0</u>: General
 - <u>D.4.1</u>: Process Management
 - <u>D.4.2</u>: Storage Management
 - <u>D.4.3</u>: File Systems Management
 - <u>D.4.4</u>: Communications Management

- <u>D.4.5</u>: Reliability
- <u>D.4.6</u>: Security and Protection
- <u>D.4.7</u>: Organization and Design
- D.4.8: Performance
- <u>D.4.9</u>: Systems Programs and Utilities
- D.4.m: Miscellaneous
- D.m: MISCELLANEOUS
- <u>E.</u>: Data
 - E.O: GENERAL
 - E.1: DATA STRUCTURES
 - E.2: DATA STORAGE REPRESENTATIONS
 - E.3: DATA ENCRYPTION
 - E.4: CODING AND INFORMATION THEORY
 - E.5: FILES
 - <u>E.m</u>: MISCELLANEOUS
- F.: Theory of Computation
 - F.0: GENERAL
 - F.1: COMPUTATION BY ABSTRACT DEVICES
 - <u>F.1.0</u>: General
 - <u>F.1.1</u>: Models of Computation
 - <u>F.1.2</u>: Modes of Computation
 - <u>F.1.3</u>: Complexity Measures and Classes
 - F.1.m: Miscellaneous
 - F.2: ANALYSIS OF ALGORITHMS AND PROBLEM COMPLEXITY
 - F.2.0: General
 - <u>F.2.1</u>: Numerical Algorithms and Problems
 - <u>F.2.2</u>: Nonnumerical Algorithms and Problems
 - <u>F.2.3</u>: Tradeoffs between Complexity Measures
 - F.2.m: Miscellaneous
 - F.3: LOGICS AND MEANINGS OF PROGRAMS
 - <u>F.3.0</u>: General
 - F.3.1: Specifying and Verifying and Reasoning about Programs
 - <u>F.3.2</u>: Semantics of Programming Languages
 - F.3.3: Studies of Program Constructs
 - F.3.m: Miscellaneous
 - F.4: MATHEMATICAL LOGIC AND FORMAL LANGUAGES
 - <u>F.4.0</u>: General
 - <u>F.4.1</u>: Mathematical Logic
 - <u>F.4.2</u>: Grammars and Other Rewriting Systems
 - <u>F.4.3</u>: Formal Languages
 - F.4.m: Miscellaneous
 - F.m: MISCELLANEOUS
- G.: Mathematics of Computing
 - <u>G.0</u>: GENERAL
 - G.1: NUMERICAL ANALYSIS
 - <u>G.1.0</u>: General

- <u>G.1.1</u>: Interpolation
- <u>G.1.2</u>: Approximation
- G.1.3: Numerical Linear Algebra
- G.1.4: Quadrature and Numerical Differentiation
- <u>G.1.5</u>: Roots of Nonlinear Equations
- <u>G.1.6</u>: Optimization
- <u>G.1.7</u>: Ordinary Differential Equations
- <u>G.1.8</u>: Partial Differential Equations
- <u>G.1.9</u>: Integral Equations
- <u>G.1.10</u>: Applications
- <u>G.1.m</u>: Miscellaneous
- G.2: DISCRETE MATHEMATICS
 - G.2.0: General
 - <u>G.2.1</u>: Combinatorics
 - <u>G.2.2</u>: Graph Theory
 - <u>G.2.3</u>: Applications
 - G.2.m: Miscellaneous
- G.3: PROBABILITY AND STATISTICS
- G.4: MATHEMATICAL SOFTWARE
- G.m: MISCELLANEOUS
- <u>H.</u>: Information Systems
 - <u>H.0</u>: GENERAL
 - H.1: MODELS AND PRINCIPLES
 - <u>H.1.0</u>: General
 - H.1.1: Systems and Information Theory
 - H.1.2: User/Machine Systems
 - <u>H.1.m</u>: Miscellaneous
 - H.2: DATABASE MANAGEMENT
 - <u>H.2.0</u>: General
 - H.2.1: Logical Design
 - <u>H.2.2</u>: Physical Design
 - H.2.3: Languages
 - <u>H.2.4</u>: Systems
 - H.2.5: Heterogeneous Databases
 - H.2.6: Database Machines
 - H.2.7: Database Administration
 - <u>H.2.8</u>: Database Applications
 - <u>H.2.m</u>: Miscellaneous
 - H.3: INFORMATION STORAGE AND RETRIEVAL
 - <u>H.3.0</u>: General
 - H.3.1: Content Analysis and Indexing
 - <u>H.3.2</u>: Information Storage
 - <u>H.3.3</u>: Information Search and Retrieval
 - <u>H.3.4</u>: Systems and Software
 - H.3.5: Online Information Services
 - <u>H.3.6</u>: Library Automation

- <u>H.3.7</u>: Digital Libraries
- H.3.m: Miscellaneous
- H.4: INFORMATION SYSTEMS APPLICATIONS
 - H.4.0: General
 - H.4.1: Office Automation
 - <u>H.4.2</u>: Types of Systems
 - <u>H.4.3</u>: Communications Applications
 - H.4.m: Miscellaneous
- <u>H.5</u>: INFORMATION INTERFACES AND PRESENTATION (e.g., HCI)
 - H.5.0: General
 - <u>H.5.1</u>: Multimedia Information Systems
 - H.5.2: User Interfaces
 - <u>H.5.3</u>: Group and Organization Interfaces
 - <u>H.5.4</u>: Hypertext/Hypermedia
 - <u>H.5.5</u>: Sound and Music Computing
 - H.5.m: Miscellaneous
- <u>H.m</u>: MISCELLANEOUS
- <u>L</u>: Computing Methodologies
 - I.0: GENERAL
 - I.1: SYMBOLIC AND ALGEBRAIC MANIPULATION
 - I.1.0: General
 - <u>I.1.1</u>: Expressions and Their Representation
 - <u>I.1.2</u>: Algorithms
 - <u>I.1.3</u>: Languages and Systems
 - <u>I.1.4</u>: Applications
 - I.1.m: Miscellaneous
 - I.2: ARTIFICIAL INTELLIGENCE
 - I.2.0: General
 - <u>I.2.1</u>: Applications and Expert Systems
 - <u>I.2.2</u>: Automatic Programming
 - <u>I.2.3</u>: Deduction and Theorem Proving
 - <u>I.2.4</u>: Knowledge Representation Formalisms and Methods
 - <u>I.2.5</u>: Programming Languages and Software
 - I.2.6: Learning
 - <u>I.2.7</u>: Natural Language Processing
 - <u>I.2.8</u>: Problem Solving, Control Methods, and Search
 - I.2.9: Robotics
 - <u>I.2.10</u>: Vision and Scene Understanding
 - <u>I.2.11</u>: Distributed Artificial Intelligence
 - <u>I.2.m</u>: Miscellaneous
 - I.3: COMPUTER GRAPHICS
 - I.3.0: General
 - <u>I.3.1</u>: Hardware Architecture
 - <u>I.3.2</u>: Graphics Systems
 - <u>I.3.3</u>: Picture/Image Generation
 - <u>I.3.4</u>: Graphics Utilities

- <u>I.3.5</u>: Computational Geometry and Object Modeling
- <u>I.3.6</u>: Methodology and Techniques
- I.3.7: Three-Dimensional Graphics and Realism
- <u>I.3.8</u>: Applications
- I.3.m: Miscellaneous
- I.4: IMAGE PROCESSING AND COMPUTER VISION
 - I.4.0: General
 - <u>I.4.1</u>: Digitization and Image Capture
 - <u>I.4.2</u>: Compression (Coding)
 - I.4.3: Enhancement
 - I.4.4: Restoration
 - I.4.5: Reconstruction
 - <u>I.4.6</u>: Segmentation
 - I.4.7: Feature Measurement
 - <u>I.4.8</u>: Scene Analysis
 - <u>I.4.9</u>: Applications
 - <u>I.4.10</u>: Image Representation
 - I.4.m: Miscellaneous
- I.5: PATTERN RECOGNITION
 - I.5.0: General
 - I.5.1: Models
 - <u>I.5.2</u>: Design Methodology
 - <u>I.5.3</u>: Clustering
 - <u>I.5.4</u>: Applications
 - <u>I.5.5</u>: Implementation
 - I.5.m: Miscellaneous
- I.6: SIMULATION AND MODELING
 - I.6.0: General
 - <u>I.6.1</u>: Simulation Theory
 - <u>I.6.2</u>: Simulation Languages
 - <u>I.6.3</u>: Applications
 - <u>I.6.4</u>: Model Validation and Analysis
 - <u>I.6.5</u>: Model Development
 - I.6.6: Simulation Output Analysis
 - <u>I.6.7</u>: Simulation Support Systems
 - I.6.8: Types of Simulation
 - I.6.m: Miscellaneous
- <u>I.7</u>: DOCUMENT AND TEXT PROCESSING
 - <u>I.7.0</u>: General
 - <u>I.7.1</u>: Document and Text Editing
 - I.7.2: Document Preparation
 - <u>I.7.3</u>: Index Generation
 - <u>I.7.4</u>: Electronic Publishing
 - <u>I.7.5</u>: Document Capture
 - I.7.m: Miscellaneous
- I.m: MISCELLANEOUS

- <u>J.</u>: Computer Applications
 - J.0: GENERAL
 - J.1: ADMINISTRATIVE DATA PROCESSING
 - J.2: PHYSICAL SCIENCES AND ENGINEERING
 - J.3: LIFE AND MEDICAL SCIENCES
 - J.4: SOCIAL AND BEHAVIORAL SCIENCES
 - J.5: ARTS AND HUMANITIES
 - J.6: COMPUTER-AIDED ENGINEERING
 - J.7: COMPUTERS IN OTHER SYSTEMS
 - J.m: MISCELLANEOUS
- <u>K.</u>: Computing Milieux
 - K.0: GENERAL
 - K.1: THE COMPUTER INDUSTRY
 - K.2: HISTORY OF COMPUTING
 - K.3: COMPUTERS AND EDUCATION
 - K.3.0: General
 - <u>K.3.1</u>: Computer Uses in Education
 - <u>K.3.2</u>: Computer and Information Science Education
 - K.3.m: Miscellaneous
 - K.4: COMPUTERS AND SOCIETY
 - K.4.0: General
 - <u>K.4.1</u>: Public Policy Issues
 - K.4.2: Social Issues
 - <u>K.4.3</u>: Organizational Impacts
 - K.4.4: Electronic Commerce
 - K.4.m: Miscellaneous
 - K.5: LEGAL ASPECTS OF COMPUTING
 - K.5.0: General
 - K.5.1: Hardware/Software Protection
 - K.5.2: Governmental Issues
 - K.5.m: Miscellaneous
 - <u>K.6</u>: MANAGEMENT OF COMPUTING AND INFORMATION SYSTEMS
 - <u>K.6.0</u>: General
 - <u>K.6.1</u>: Project and People Management
 - <u>K.6.2</u>: Installation Management
 - <u>K.6.3</u>: Software Management
 - <u>K.6.4</u>: System Management
 - <u>K.6.5</u>: Security and Protection
 - K.6.m: Miscellaneous
 - K.7: THE COMPUTING PROFESSION
 - K.7.0: General
 - <u>K.7.1</u>: Occupations
 - <u>K.7.2</u>: Organizations
 - <u>K.7.3</u>: Testing, Certification, and Licensing
 - K.7.4: Professional Ethics
 - K.7.m: Miscellaneous

- <u>K.8</u>: PERSONAL COMPUTING
 - <u>K.8.0</u>: General
 - <u>K.8.1</u>: Application Packages
 - <u>K.8.2</u>: Hardware
 - <u>K.8.3</u>: Management/Maintenance
 - <u>K.8.m</u>: Miscellaneous
- K.m: MISCELLANEOUS